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CALIFORNIA DESERT AIR WORKING GROUP

DATA BASE STUDY

VOLUME 5 OF 7

DATA BASE CATALOGUE

ENVIRONMENTAL MONITORING & SERVICES, INC.*

Formerly Environmental Monitoring & Services Center
of Rockwell International Corporation

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Newbury Park, California 91320

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Table of Contents

	Page
1.0 CATALOGUE OF AMBIENT MONITORING SITES IN THE CALIFORNIA DESERT. .	1-1
2.0 MAIN CATALOGUE.	2-1
2.1 CATALOGUE STRUCTURE: MAIN CATALOGUE	2-1
2.1.1 Site Code and Address.	2-1
2.1.2 Operating Procedures	2-3
2.1.3 Representativeness	2-4
2.1.4 Site Location.	2-5
2.1.5 Network/Site Contact	2-5
2.1.6 Purpose of Monitoring and Site Classification. . .	2-6
2.1.7 Number of Sites in Network	2-8
2.1.8 Variable Information	2-8
3.0 SUPPLEMENTARY CATALOGUE	3-1
3.1 Meteorological Data	3-1
3.1.1 Micrometeorology Data.	3-3
3.2 Upper Air Data.	3-4
3.3 Emissions Inventory	3-4
3.4 Piball Data	3-4
4.0 EXCLUDED DATA	4-1
A. ALTERNATE SITE INDICES.	A-1
B. CATALOGUE GENERATING SOFTWARE	B-1
B.1 CATALOGUE GENERATION.	B-2
B.2 SUMMARY OF SOFTWARE	B-2
C. PARAMETER ABBREVIATIONS	C-1
D. METHOD CODES.	D-1

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1.0 CATALOGUE OF AMBIENT MONITORING SITES IN THE CALIFORNIA DESERT

INTRODUCTION

Available air quality and visibility data along with a selection of meteorological data for reporting sites in the California desert have been compiled. The data base is divided into two parts: the main part containing all aerometric and visibility data and a supplementary part containing all meteorological, emission inventory and other data.

The data in the main data base are, for the most part, in a common format. Data from a few sites, particularly visibility reporting are in separate formats. Data in the supplementary data base are in specific formats; for convenience formats in which the data were supplied are used. Data file structure and their format information are included in the data tape documentation enclosed with the data tapes. Details of the information contained in the data base are catalogued in this document. Once again, the main data base catalogue is more exhaustive than the supplementary catalogue.

The catalogue is alphabetically sorted according the site names. A numerically sorted index of sites is included in Appendix A for the user's convenience. Also included in Appendix A are lists of sites grouped by counties and sites grouped by the data source, i.e. Southern California Edison, Air Resources Board, etc.

A list of reporting sites in the California desert excluded from the data base and the catalogue is also included in this document. These sites were excluded because only hardcopy data are available and the it was not cost effective to transcribe them on to computer tapes. This listing is provided

as a service to the user of the data base who may wish to obtain additional data.

The software required to generate and revise the main catalogue is also included in Appendix B; a sample input file is also given. The software is internally documented and may be used by the user to make changes to the catalogue. The code is included in the data base tape as is the input catalogue file from which the present main catalogue is created.

This document can be used as a stand alone catalogue of available aerometric and meteorological information in the California desert or as an aid to using the data base itself.

CALIFORNIA DESERT: Selected Atmospheric Monitoring Sites



2.0 MAIN CATALOGUE

2.1 CATALOGUE STRUCTURE: MAIN CATALOGUE

Details of the air quality, meteorological, and/or visibility monitoring sites in the California desert along with the details of the data collected at each site are catalogued here. Information is stored in each of 8 categories; comments are also included as needed. The details of the catalogue structure and the various codes used are described below. The first part of each page of the catalogue pertains to network and site information: description, network purpose, site operation, contact person, and location. The latter part (in the table) provides variable information. The comments are at the bottom of each page.

Caveat Emptor. Although the main catalogue and the data base it complements borrows features - format, codes, etc. - heavily from standard practices of the California Air Resources Board (CARB), no official endorsement was sought from the agency and none is implied. Their features were used because data from CARB data bank form the major fraction of the data base.

2.1.1 Site Code and Address

All sites are identified by a 10 character alphanumeric site code. CARB site codes are used for CARB sites. They are preceded by a three letter prefix: ARB for CARB and EMS for other sites. SAROAD sites have not been included since SAROAD sites in the California desert are also CARB sites. The three letter prefix is followed by a 7 digit numerical code. For CARB sites, their 7 digit code is used. For other sites, the code is as follows: The first two numbers refer to the county; CARB's county numbers are used. The county

codes for the California desert are

- 13 - Imperial County
- 14 - Inyo County
- 15 - Kern County
- 26 - Mono County
- 33 - Riverside County
- 36 - San Bernardino County
- 70 - Los Angeles County
- 99 - Non-California county

For sites out of state, mainly in Arizona or Nevada, a county code of 99 is used.

The next 2 numbers denote the agency responsible for the site:

- 00 - California Air Resources Board
- 01 - Southern California Edison
- 02 - Southern California Gas Company
- 03 - San Diego Gas and Electric
- 04 - NWC, China Lake
- 05 - Air Force Sites
- 06 - National Park Service
- 07 - EPRI
- 08 - National Weather Service (mainly for meteorological data)

09 - University run sites

10 - Lawrence Livermore Labs

11 - Department of Transportation (CALTRANS)

12 - EPA Las Vegas

13 - U.S. Army

14 - EPRI Western Regional Air Quality Studies

30 - Miscellaneous sites, e.g. individuals operating a site, etc.

This list covers all the agencies from which data were obtained; unused codes through 99 may be utilized to designate other agencies in the future.

The last three digits are for the site number.

The site codes are listed at the upper left of each page of the catalogue. The site codes are also listed in numerical order in Appendix A.

2.1.2 Operating Procedures

The operating procedures at each site are rated according to the following code:

ARB SOP - CARB's standard operating procedures (SOP);

EPA SOP - EPA/SAROAD standard operating procedures;

OTHER SOP - Other agency standard operating procedures;

NO SOP - No SOP used or information not available

2.1.3 Representativeness

Site representativeness depends on several factors and is assigned a 6-digit composite index. The first two digits pertain to data; digits 3 and 4 pertain to sampling; and the last two digits pertain to population and traffic information. The details of the index are given below:

Digit 1: 2 - Data available for all seasons
1 - Data not available for all seasons
0 - Information not available

Digit 2: 2 - At least one year's data available
1 - Less than one year's data available
0 - Information not available

Digit 3: Index for coding whether sampler probe satisfies EPA (or NWS for meteorological sampling) sampling criteria.
5 - Probes for all instruments satisfy EPA criteria
4 - Probes for 2/3 of instruments satisfy EPA criteria
3 - Probes for 1/2 of instruments satisfy EPA criteria
2 - Probes for 1/3 of instruments satisfy EPA criteria
1 - Probes for no instrument satisfy EPA criteria
0 - Information not available

Digit 4: 2 - Site thermal environment controlled
1 - Site thermal environment not controlled
0 - Information not available

Digit 5: Index to code population of locality of site, e.g., town,

village, metropolitan area, etc. that has the dominating influence on the site.

- 4 - Population greater than 50,000
- 3 - Population between 10,000 and 50,000
- 2 - Population between 1,000 and 10,000
- 1 - Population less than 1,000
- 0 - Information not available

Digit 6: Index to code average daily traffic on the nearest street.

- 4 - Greater than 500 vehicles per day (VPD)
- 3 - Between 100 and 500 VPD
- 2 - Less than 100 VPD
- 1 - No public access road within 500 M of site
- 0 - Information not available

2.1.4 Site Location

The site location is defined by its latitude and longitude. The UTM coordinates as well as the township and ranges (where available) are also given. NOTE: All UTMS are in zone 11 except as noted.

2.1.5 Network/Site Contact

Information concerning the agency responsible for the network is given. Information on the sites in the network as well as the data collected at the site are usually available at this parent agency. Information includes (1) the person responsible in the agency, (2) the name and address of the agency, (3) a telephone number if available, and (4) the name and telephone number of a local contact person for each site if available and different from item 1.

2.1.6 Purpose of Monitoring and Site Classification

The purpose for which the monitoring was established is categorized by a 5-character composite index. The first two characters denote the purpose of monitoring; the third character (numerical) denotes the demographic location of the site; and the last two characters denote the dominating influence on the site. The details of the index are given below:

Monitoring purpose code (first 2 characters)

- * AQ - Regulatory monitoring;
- * AN - Non regulatory or other monitoring;
- * RA - Air quality research
- * RV - Visibility research
- * RR - Other research
- * BL - Base line studies
- * QA - Quality assurance or audit
- * PM - Permitting and/or compliance monitoring
- * UK - Unknown monitoring purpose

Demographic location code (third character)

- * 4 - City center/urban
- * 3 - Suburban
- * 2 - Rural
- * 1 - Remote

* 0 - Unknown or information not available

Dominating influence code (last 2 characters)

* IN - Industrial

* RE - Residential

* CO - Commercial (non smokestack business)

* VE - Vehicular

* NU - Near urban; typically just outside urban area

* AG - Agricultural

* PA - Parks and recreational areas

* MI - Military

* AP - Airports

* SO - Natural source, usually dust, e.g., dry lake bed.

* UU - Unknown or unspecified

2.1.7 Number of Sites in Network

The number of sites in the network is coded. For a network extending beyond the California desert, e.g., California Air Resources Board's (CARB) air quality network, only the sites within the desert are considered to form a network.

2.1.8 Variable Information

Variable information is tabulated in the second part of each page in the catalogue.

All the variables for which data are available at each site are coded; a four character (maximum) label is used, e.g., SO₂, TSP, NO_x, etc. A complete list of variable labels is given in Appendix C. For each variable, the following information is provided (unavailable information is left blank):

Start and End dates between which data are available; end dates for currently operational sites are the latest date for which data are available, typically the last few months in 1983.

Completeness of available data coded as a percentage of possible data available in the data base.

Sampling mode for the variable is coded as follows:

- * Hourly data collection;
- * Daily data collection;
- * 24 hour data collected every sixth day (for TSP)
- * Continuous data collection;

* Other data collection frequency (specified in comments, if known)
or information not available.

Method code for the variable is coded according to the same method codes used by CARB. A complete list of method codes is given in Appendix D.

Method comparability is coded on a scale of 1 to 10, with 10 being best. All the methods used by CARB for each parameter are considered equivalent, and other methods are rated with reference to these equivalent methods. These methods rather than the EPA equivalent methods are used, since EPA equivalent methods are defined only for the criteria pollutants. The comparability code is assigned as follows:

10 - Same as the equivalent method.

1 to 9 - Ten times the published correlations between the reference method and the method under consideration (rounded off to one significant digit)

0 - Comparability not available in open literature.

Data quality is rated by a 7-digit composite index. The first 2 digits pertain to the precision and accuracy standards; digits 3 and 4 pertain to data collection and processing; and the last 3 digits pertain to calibration and operation. The details of the index are given below:

Digit 1: 3 - Measurement precision better than $\pm 10\%$
2 - Measurement precision between ± 10 and 20%
1 - Measurement precision worse than $\pm 20\%$
0 - Measurement precision unknown

Digit 2: 3 - Measurement accuracy better than $\pm 5\%$
2 - Measurement accuracy between ± 5 and 10%
1 - Measurement accuracy worse than $\pm 10\%$
0 - Measurement accuracy unknown

Digit 3: 5 - Automatic data recording (usually data logger) and computer data processing
4 - Automatic strip chart/printout data recording and computer processing; this requires manual digitizing or input of data for processing.
3 - Manual data recording (by operator or operator controlled logger) and computer processing
2 - Manual data recording and processing; formal procedures and datasheets (usually for a special short duration study);
1 - Manual data recording and processing; informal procedure (usually for individual research type study).
0 - Information not available

Digit 4: Index to code the methods used for deleting erroneous data; data errors occurring due to any number of reasons: instrument malfunction, unusual source, incomplete data logs, etc. Quality control means the deleting of data according to established formal or informal procedures.
3 - Manual data quality control per established criteria or SOP
2 - Automatic quality control per established criteria or SOP

- 1 - Informal manual data quality control
- 0 - No data quality control or unknown

- Digit 5:
- 4 - Monthly calibrations or more often
 - 3 - Between 4 to 12 calibrations yearly
 - 2 - Less frequent than quarterly, but periodic
 - 1 - Random
 - 0 - No calibrations or information not available

- Digit 6:
- 4 - Flow, zero, and system checks daily (or every day that measurements are made, e.g. 6th day for TSP)
 - 3 - Flow, zero, and system checks at least weekly (Not applicable for TSP)
 - 2 - Flow, zero, and system checks at least monthly
 - 1 - Random checks or at breakdown only
 - 0 - No system checks or information not available

- Digit 7:
- 2 - Formal operator training per SOP or other document
 - 1 - Informal training; no SOP
 - 0 - No training or information unavailable

SITE NAME: **Banning**
 Site Code: **ARB3300150**
 Site Contact: Anthony Hernandez
 Phone: (818) 572-6383
 Site Address: 135 N. Allenandro
 Banning, CA

Operating Procedures: ARB SOP
 Representativeness: 225234

Township: 3S Range: 1E Section: 10
 Latitude: 33°55'30"
 Northing: 3753653
 Longitude: 116°52'30"
 Easting: 511554
 Contact Name: Air Quality Data Section
 Agency: ARB - Aerometric Data Division
 Address: P.O. Box 2815
 Sacramento, CA 95812

Monitoring Purpose
 & Site Location: AQ4RE
 Number of Sites
 in Network: 54

Phone No.: (916) 445-4765

Parameter	Sampling Period		Completeness of Data	Sampling Mode	Method Code	Comp Code	Data Quality
	Begin	End					
TSP	2/74	12/83	93	6TH DAY	91	10	2143442
SULF	7/76	12/83	75	6TH DAY	55	10	2143432
SULF	1/76	5/78	89	6TH DAY	92	10	0143432
LEAD	8/76	6/82	18	6TH DAY	92	10	2143432
LEAD	7/78	8/83	87	6TH DAY	56	10	2143432
CO	9/75	12/76	91	CONTINUOUS	12	10	0343432
CO	1/77	2/80	98	CONTINUOUS	11	10	0343432
SO2	2/74	3/74	89	CONTINUOUS	14	10	0343432
THC	10/75	8/77	87	CONTINUOUS	11	10	0143432
O3	5/73	9/83	98	CONTINUOUS	14	10	2343432
COH	1/74	6/78	36	CONTINUOUS	81	10	0143432
NO3	2/77	4/78	99	6TH DAY	55	10	0143432
NO3	1/76	6/76	71	6TH DAY	58	10	0143432

Comments: Data gaps in lead,SO4,N03 eliminated
 by multiple methods.
 Met data may be available.
 Site currently in operation.

SITE NAME: **Banning**
Site Code: **ARB3300133**
Site Contact: **Anthony Hernandez**
Phone: **(818) 572-6383**
Site Address: **Banning, CA**

Operating Procedures: **ARB SOP**
Representativeness: **115234**

Township: **3S** Range: **1E** Section: **10**
Latitude: **33°55'29"**
Northing: **3753653**
Longitude: **116°52'29"**
Easting: **511554**
Contact Name: **Air Quality Data Section**
Agency: **ARB - Aerometric Data Division**
Address: **P.O. Box 2815**
Sacramento, CA 95812

Monitoring Purpose
& Site Location: **AQOUU**
Number of Sites
in Network: **54**

Phone No.: **(916) 445-4765**

Parameter	Sampling Period		Completeness of Data	Sampling Mode	Method Code	Comp Code	Data Quality
	Begin	End					
COH	3/71	8/71	31	CONTINUOUS	81	10	0143432
NO	3/71	9/71	44	CONTINUOUS	11	10	0143432
NO2	3/71	11/71	79	CONTINUOUS	11	10	0143432
NOX	3/71	12/71	37	CONTINUOUS	11	10	0143432
OX	3/71	12/72	86	CONTINUOUS	14	10	0143432
O3	1/73	4/73	94	CONTINUOUS	14	10	0143432
TSP	1/70	2/74	31	6TH DAY	91	10	0143442
NO3	1/74	6/74	70	6TH DAY	55	10	0143432
SULF	1/74	6/74	70	6TH DAY	92	10	0143432

Comments:

Operating Procedures: ARB SOP
Representativeness: 225234

Monitoring Purpose
& Site Location: AQ4RE
Number of Sites
in Network: 54

[illegible]

SITE NAME: **Barstow**
 Site Code: **ARB3600155**
 Site Contact: Robert Ramirez
 Phone: (619) 245-4247
 Site Address: 301 E. Mountain View
 Barstow, CA 92311

Operating Procedures: ARB SOP
 Representativeness: 225244

Township: 9N Range: 1W Section: 6
 Latitude: 34°53'38"
 Northing: 3861079
 Longitude: 117°01'24"
 Easting: 497868
 Contact Name: Air Quality Data Section
 Agency: ARB - Aerometric Data Division
 Address: P.O. Box 2815
 Sacramento, CA 95812

Monitoring Purpose
 & Site Location: AQ4CO
 Number of Sites
 in Network: 54

Phone No.: (916) 445-4765

Parameter	Sampling Period		Completeness of Data	Sampling Mode	Method Code	Comp Code	Data Quality
	Begin	End					
TSP	1/76	5/82	78	6TH DAY	91	10	2143442
SULF	1/75	4/78	89	6TH DAY	92	10	0143432
SULF	5/78	8/83	72	6TH DAY	55	10	2143432
LEAD	1/76	12/79	68	6TH DAY	92	10	0143432
LEAD	7/78	8/83	63	6TH DAY	56	10	2143432
NOX	10/73	3/80	80	CONTINUOUS	11	10	0143432
NOX	5/80	10/83	89	CONTINUOUS	14	10	2143432
CO	1/77	10/83	80	CONTINUOUS	11	10	2343432
CO	10/73	12/76	96	CONTINUOUS	12	10	0343432
NO3	1/77	4/78	81	6TH DAY	55	10	0143432
NO3	5/78	8/83	72	6TH DAY	57	10	2143432
O3	10/73	9/80	90	CONTINUOUS	11	10	0343432
O3	5/76	10/83	36	CONTINUOUS	14	10	2343432

Comments: One month O3, method 14 data in 76.
 Overlap for 2 lead methods
 eliminates some data gaps.
 Met data may be available. Site currently in operation.

SITE NAME: **Barstow** (Cont.)
 Site Code: **ARB3600155**
 Site Contact: Robert Ramirez
 Phone: (619) 245-4247
 Site Address: 301 E. Mountain View
 Barstow, CA 92311

Operating Procedures: ARB SOP
 Representativeness: 225244

Township: 9N Range: 1W Section: 6
 Latitude: 34°53'38"
 Northing: 3861079
 Longitude: 117°01'24"
 Easting: 497868
 Contact Name: Air Quality Data Section
 Agency: ARB - Aerometric Data Division
 Address: P.O. Box 2815
 Sacramento, CA 95812

Monitoring Purpose
 & Site Location: AQ4C0
 Number of Sites
 in Network: 54

Phone No.: (916) 445-4765

Parameter	Sampling Period		Completeness of Data	Sampling Mode	Method Code	Comp Code	Data Quality
	Begin	End					
NO2	10/73	3/80	90	CONTINUOUS	11	10	0343432
NO2	5/80	12/81	93	CONTINUOUS	14	10	2343432
NO2	1/82	10/83	86	CONTINUOUS	98	10	2343432
OX	3/69	5/72	46	CONTINUOUS	14	10	0143432
COH	1/70	8/80	34	CONTINUOUS	81	10	0143432
NO	10/73	12/77	86	CONTINUOUS	11	10	0143432
NO	1/78	3/80	66	CONTINUOUS	99	10	0143432
NO	5/80	12/81	88	CONTINUOUS	98	10	2143432
NO	1/82	10/83	86	CONTINUOUS	14	10	2143432

Comments: One month 03, method 14 data in 76.
 Overlap for 2 lead methods
 eliminates some data gaps.
 Met data may be available. Site currently in operation.

Operating Procedures: ARB SOP
Representativeness: 225232

```
Monitoring Purpose
  & Site Location: AQ2SO
  Number of Sites
    in Network: 54
```

Phone No.: (916) 445-4765

[illegible]

Comments: Site currently in operation.

Operating Procedures: ARB SOP
Representativeness: 225233

```
Monitoring Purpose
  & Site Location: AQ4C0
Number of Sites
  in Network: 54
```

[illegible]

2- 18

SITE NAME: Bishop - DWP Pump 248
 Site Code: ARB1400702
 Site Contact: Chuck Fryxell
 Phone: (619) 872-8211
 Site Address: Lower McNalley
 Bishop, CA 93514

Operating Procedures: ARB SOP
 Representativeness: 005212

Township: 6S Range: 36E Section: 16
 Latitude: 37°26'00"
 Northing: 4143622
 Longitude: 118°22'12"
 Easting: 378792

Contact Name: Air Quality Data Section
 Agency: ARB - Aerometric Data Division
 Address: P.O. Box 2815
 Sacramento, CA 95812

Monitoring Purpose
 & Site Location: RAISO
 Number of Sites
 in Network: 54

Phone No.: (916) 445-4765

Parameter	Sampling Period		Completeness of Data	Sampling Mode	Method Code	Comp Code	Data Quality
	Begin	End					
TSP	8/81	12/82	141	6TH DAY	91	10	2143442
WS	9/81	12/82		CONTINUOUS	50	10	2143442
WD	9/81	12/82		CONTINUOUS	50	10	2143442
TEMP	9/81	12/82		CONTINUOUS	35	10	2143442

Comments: Temp has not been reduced from charts.
 Hardcopy met data only; not included in data base.

SITE NAME: **Blythe**
 Site Code: **EMS3303004**
 Site Contact: See Below
 Phone:
 Site Address: Blythe, CA

Operating Procedures: OTHER SOP
 Representativeness: 220030

Township: 7S Range: 23E Section: 4
 Latitude: 33°35'00"
 Northing: 3718383
 Longitude: 114°35'00"
 Easting: 724289
 Contact Name: Mr. Ed Gabrielson/Gee Y. Lowe
 Agency: San Diego Gas & Electric Co.
 Address: P.O. Box 1831
 San Diego, CA 92112

Monitoring Purpose
 & Site Location: PM2IN
 Number of Sites
 in Network: 3

Phone No.: (619) 232-4252

Parameter	Sampling Period		Completeness of Data	Sampling Mode	Method Code	Comp Code	Data Quality
	Begin	End					
WS	6/75	10/77	99	CONTINUOUS	50	10	0043331
WD	6/75	10/77	99	CONTINUOUS	50	10	0043331

Comments: Data at 190 feet. Data at 33 feet
 coded as site 3303002

Operating Procedures: ARB SOP
Representativeness: 225234

Monitoring Purpose
& Site Location: AQOUU
Number of Sites
in Network: 54

[illegible]

2- 21

Operating Procedures: OTHER SOP
Representativeness: 220030

Monitoring Purpose
& Site Location: PM2IN
Number of Sites
in Network: 3

[illegible]

SITE NAME: **Blythe**
 Site Code: **EMS3313001**
 Site Contact: See Below
 Phone:
 Site Address:

Operating Procedures: OTHER SOP
 Representativeness: 250034

Township: 6S Range: 21E Section: 33
 Latitude: 33°37'
 Northing: 3721664
 Longitude: 114°47'
 Easting: 705644
 Contact Name: Douglas Allard
 Agency: AeroVironment Inc.
 Address: 145 Vista Avenue
 Pasadena, CA 91107

Monitoring Purpose
 & Site Location: RA2NU
 Number of Sites
 in Network: 11

Phone No.: (818)449-4392

Parameter	Sampling Period		Completeness of Data	Sampling Mode	Method Code	Comp Code	Data Quality
	Begin	End					
VISI	1/81	10/82		HOURLY		0	0043040
VISI	1/81	10/82		HOURLY		9	0043040
VISI	1/81	10/82		HOURLY	11	7	0043040
WS	1/81	10/82		CONTINUOUS	50	10	0043040
WD	1/81	10/82		CONTINUOUS	50	10	0043040
RAIN	1/81	10/82		CONTINUOUS	11	10	0043040
TEMP	1/81	10/82		CONTINUOUS	40	10	0043040
RH	1/81	10/82		CONTINUOUS	20		0043040
DEW	1/81	10/82		CONTINUOUS	40	10	0043040
UWS	1/81	10/82					0043040
UWD	1/81	10/82					0043040
PMF	1/81	10/82		6TH DAY	52	10	0043040
PMC	1/81	10/82		6TH DAY	51	10	0043040

Comments: PMF is < 2.5 um; PMC between 2.5 and 15 um.
 Sampling for 8 hour, daily, only.
 SO4, NO3, NH4, Si, CA, Fe, Pb in fine and Si, CA, Fe in
 coarse partile elemental analysis.

Operating Procedures: OTHER SOP
Representativeness: 250034

```
Monitoring Purpose
  & Site Location: RA2NU
  Number of Sites
    in Network: 11
```

[illegible]

Operating Procedures: ARB SOP
Representativeness: 225234

Monitoring Purpose
& Site Location: AQ3RE
Number of Sites
in Network: 54

[illegible]

Operating Procedures: ARB SOP
Representativeness: 225534

Monitoring Purpose
& Site Location: QA4CO
Number of Sites
in Network: 54

[illegible]

Operating Procedures: ARB SOP
Representativeness: 225244

Monitoring Purpose
& Site Location: AQ4C0
Number of Sites
in Network: 54

[illegible]

2- 27

SITE NAME: **Brawley Hovely**
 Site Code: **ARB1300691**
 Site Contact: Harry Dillon
 Phone: (619) 339-4314
 Site Address: Hovely
 Brawley, CA

Operating Procedures: ARB SOP
 Representativeness: 225224

Township: 13S Range: 14E Section: 20
 Latitude: 33°01'09"
 Northing: 3654168
 Longitude: 115°32'22"
 Easting: 636419
 Contact Name: Air Quality Data Section
 Agency: ARB - Aerometric Data Division
 Address: P.O. Box 2815
 Sacramento, CA 95812

Monitoring Purpose
 & Site Location: AQ2AG
 Number of Sites
 in Network: 54

Phone No.: (916) 445-4765

Parameter	Sampling Period		Completeness of Data	Sampling Mode	Method Code	Comp Code	Data Quality
	Begin	End					
NOX	2/77	10/80	69	CONTINUOUS	14	10	0143432
SO2	2/77	4/78	76	CONTINUOUS	20	10	0343432
H2S	2/77	11/77	83	CONTINUOUS	71	10	0143432
O3	1/77	12/80	37	CONTINUOUS	14	10	0343432
NO2	4/77	4/78	69	CONTINUOUS	14	10	0343432
NO	4/77	4/78	69	CONTINUOUS	98	10	0143432

Comments: L.L.B. monitored data, 2/77-4/78.

Operating Procedures: ARB SOP
Representativeness: 115220

Monitoring Purpose
& Site Location: AQ4CO
Number of Sites
in Network: 54

[illegible]

2- 29

SITE NAME: **Bridgeport - Co. Maint. Yard**
 Site Code: **ARB2600773**
 Site Contact: Chuck Fryxell
 Phone: (619) 872-8211
 Site Address: Bridgeport, CA

Operating Procedures: ARB SOP
 Representativeness: 225220

Township: 5N Range: 25E Section: 33
 Latitude: 38°20'
 Northing: 4244989
 Longitude: 119°15'
 Easting: 303337
 Contact Name: Air Quality Data Section
 Agency: ARB - Aerometric Data Division
 Address: P.O. Box 2815
 Sacramento, CA 95812

Monitoring Purpose
 & Site Location: AQ2IN
 Number of Sites
 in Network: 54

Phone No.: (916) 445-4765

Parameter	Sampling Period		Completeness of Data	Sampling Mode	Method Code	Comp Code	Data Quality
	Begin	End					
TSP	11/72	10/74	64	6TH DAY	91	10	0143442
AL	1/73	7/73	37	6TH DAY	92	10	0143432
CD	1/73	1/74	33	6TH DAY	92	10	0143432
LEAD	1/73	1/74	33	6TH DAY	55	10	0143432
SI	1/73	7/73	37	6TH DAY	55	10	0143432

Comments:

Operating Procedures: ARB SOP
Representativeness: 15014

Monitoring Purpose
& Site Location: RA1PA
Number of Sites
in Network: 54

SITE NAME: **Calexico Fire Station**
 Site Code: **ARB1300681**
 Site Contact: Harry Dillon
 Phone: (619) 339-4314
 Site Address: 430 E. 5th Street
 Calexico, CA 92231

Operating Procedures: ARB SOP
 Representativeness: 225233

Township: 17S Range: 14E Section: 14
 Latitude: 32°39'51"
 Northing: 3614854
 Longitude: 115°30'20"
 Easting: 640141
 Contact Name: Air Quality Data Section
 Agency: ARB - Aerometric Data Division
 Address: P.O. Box 2815
 Sacramento, CA 95812

Monitoring Purpose
 & Site Location: AQ3RE
 Number of Sites
 in Network: 54

Phone No.: (916) 445-4765

Parameter	Sampling Period		Completeness of Data	Sampling Mode	Method Code	Comp Code	Data Quality
	Begin	End					
TSP	8/71	10/83	82	6TH DAY	91	10	2143442
BSO	6/80	7/80	20	6TH DAY	91	10	2143432
AL	1/73	2/73	19	6TH DAY	92	10	0143432
CD	1/73	2/73	19	6TH DAY	92	10	0143432
LEAD	8/71	1/73	22	6TH DAY	55	10	0143432
LEAD	6/80	7/80	20	6TH DAY	56	10	2143432
SI	1/73	2/73	19	6TH DAY	55	10	0143432
NO3	6/80	7/80	20	6TH DAY	55	10	2143432
SULF	6/80	7/80	20	6TH DAY	92	10	2143432

Comments: Pre 74 data quality uncertain.
 Sporadic SO4,Pb,AL,Cd,BSO,NO3 data also available.
 Site currently in operation.

Operating Procedures: ARB SOP
Representativeness: 005223

Monitoring Purpose
& Site Location: RA2SO
Number of Sites
in Network: 54

[illegible]

SITE NAME: **China Lake**
 Site Code: **ARB1500211**
 Site Contact: Henry Mayrsohn
 Phone: (805) 861-3682
 Site Address: G-1 Rd., Tower 2
 China Lake, CA 93555

Operating Procedures: ARB SOP
 Representativeness: 225113

Township: 26S Range: 40E Section: 11
 Latitude: 35°42'54"
 Northing: 3952328
 Longitude: 117°38'28"
 Easting: 442009
 Contact Name: Air Quality Data Section
 Agency: ARB - Aerometric Data Division
 Address: P.O. Box 2815
 Sacramento, CA 95812

Monitoring Purpose
 & Site Location: AQIMI
 Number of Sites
 in Network: 54

Phone No.: (916) 445-4765

Parameter	Sampling Period		Completeness of Data	Sampling Mode	Method Code	Comp Code	Data Quality
	Begin	End					
TSP	2/74	9/83	84	6TH DAY	91	10	2143442
SULF	6/80	8/83	81	6TH DAY	92	10	2143432
LEAD	6/80	8/83	78	6TH DAY	92	10	2143432
NO3	6/80	8/83	81	6TH DAY	55	10	2143432
PM15	4/82	6/83	78	6TH DAY	51	10	2143432
PMF	4/82	6/83	75	6TH DAY	52	10	2143432

Comments: Naval Base. PM15, PMF special study.
 Site currently in operation.

Operating Procedures: OTHER SOP
Representativeness: 220010

```
Monitoring Purpose
  & Site Location: AN2MI
  Number of Sites
    in Network: 12
```

[illegible]

2- 35

SITE NAME: **China Lake - Coso Drill**
 Site Code: **EMS1404002**
 Site Contact: See Below
 Phone:
 Site Address: Coso, CA

Operating Procedures: OTHER SOP
 Representativeness: 220010

Township: 22S Range: 39E Section: 6
 Latitude: 36°02'40"
 Northing: 3988976
 Longitude: 117°48'10"
 Easting: 427686
 Contact Name: Raymond Kelso
 Agency: NWC - Code 2632
 Address: China Lake, CA 93555

Monitoring Purpose
 & Site Location: AN2MI
 Number of Sites
 in Network: 12

Phone No.: (619) 939-3411

Parameter	Sampling Period		Completeness of Data	Sampling Mode	Method Code	Comp Code	Data Quality
	Begin	End					
BSCT	9/78	11/78	57	CONTINUOUS	11	7	0000000
CO	9/78	11/78	88	CONTINUOUS	11	10	0000000
TSUL	9/78	11/78	89	CONTINUOUS	16	10	0000000
H2S	9/78	11/78	75	CONTINUOUS	16	10	0000000
O3	9/78	11/78	82	CONTINUOUS	99	10	0000000
WS	9/78	11/78	79	CONTINUOUS	50	10	0000000
WD	9/78	11/78	65	CONTINUOUS	50	10	0000000
TEMP	9/78	11/78	63	CONTINUOUS	40	10	0000000
DEW	9/78	11/78	81	CONTINUOUS	40	10	0000000

Comments:

Operating Procedures: OTHER SOP
Representativeness: 220010

Monitoring Purpose
& Site Location: AN2MI
Number of Sites
in Network: 12

Operating Procedures: OTHER SOP
Representativeness: 110024

```
Monitoring Purpose
  & Site Location: RV2MI
  Number of Sites
    in Network: 1
```

[illegible]

Operating Procedures: OTHER SOP
Representativeness: 220010

Monitoring Purpose
& Site Location: AN2MI
Number of Sites
in Network: 12

Phone No.: (619) 939-3411

[illegible]

Comments:

Operating Procedures: OTHER SOP
Representativeness: 220010

Monitoring Purpose
& Site Location: AN2MI
Number of Sites
in Network: 12

[illegible]

Operating Procedures: OTHER SOP
Representativeness: 220010

Monitoring Purpose
& Site Location: AN2MI
Number of Sites
in Network: 12

Operating Procedures: OTHER SOP
Representativeness: 220010

```
Monitoring Purpose
  & Site Location: AN2MI
  Number of Sites
    in Network: 12
```

[illegible]

Operating Procedures: OTHER SOP
Representativeness: 220010

Monitoring Purpose
& Site Location: AN2MI
Number of Sites
in Network: 12

[illegible]

Operating Procedures: ARB SOP
Representativeness:

Monitoring Purpose
& Site Location: AQOUU
Number of Sites
in Network: 54

[illegible]

Operating Procedures: ARB SOP
Representativeness: 225213

Monitoring Purpose
& Site Location: AQ1VE
Number of Sites
in Network: 54

[illegible]

SITE NAME: **Daggett - Cool Water**
 Site Code: **EMS3601002**
 Site Contact: See Below
 Phone:
 Site Address: Daggett, CA 92327

Operating Procedures: OTHER SOP
 Representativeness: 225220

Township: 9N Range: 1E Section: 24
 Latitude: 34°51'08"
 Northing: 3856471
 Longitude: 116°49'57"
 Easting: 515312
 Contact Name: Andrew A. Huang
 Agency: Southern Calif. Edison, R&D
 Address: 2244 Walnut Grove Avenue
 P.O. Box 800
 Rosemead, CA 91770

Monitoring Purpose
 & Site Location: PM2IN
 Number of Sites
 in Network: 1

Phone No.: (818) 572-4165

Parameter	Sampling Period		Completeness of Data	Sampling Mode	Method Code	Comp Code	Data Quality
	Begin	End					
TSP	1/79	12/82		6TH DAY	91	10	1333421
SSI	1/79	12/82		6TH DAY	58	10	1333421
SULF	1/79	12/82		6TH DAY			1333421
NOX	1/79	12/82		CONTINUOUS	28	10	3253431
SO2	1/79	12/82		CONTINUOUS	24	10	3253431
O3	1/79	12/82		CONTINUOUS	14	10	3253431
WS	1/79	12/82		CONTINUOUS	50	10	3353221
WD	1/79	12/82		CONTINUOUS	50	10	3353221
TEMP	1/79	12/82		CONTINUOUS	40	10	3353221
INSO	1/79	12/82		CONTINUOUS	11	10	3353221
SIGM	1/79	12/82		CONTINUOUS	20	10	3353221
STAB	1/79	12/82		CONTINUOUS			0053221
PRES	1/79	12/82		CONTINUOUS		10	3353221

Comments: This project restarted in 2/84.

Operating Procedures: OTHER SOP
Representativeness: 225220

Monitoring Purpose
& Site Location: PM2IN
Number of Sites
in Network: 1

[illegible]

2- 47

SITE NAME: **Death Valley - Nevares Spring**
 Site Code: **EMS1413002**
 Site Contact: Pete Sanchez
 Phone: (619)786-2314
 Site Address: Death Valley, CA 92328

Operating Procedures: OTHER SOP
 Representativeness: 225212

Township: 28N Range: 1E Section: 36
 Latitude: 36°31'
 Northing: 4041063
 Longitude: 116°52'
 Easting: 511938
 Contact Name: Dean Westman
 Agency: U.S. Army
 Address: USAEHA - APED
 Aberdeen Proving Gr., MD 21010

Monitoring Purpose
 & Site Location: AN2PA
 Number of Sites
 in Network: 1

Phone No.: (301) 671-2510

Parameter	Sampling Period		Completeness of Data	Sampling Mode	Method Code	Comp Code	Data Quality
	Begin	End					
TSP	7/80	12/83	82	6TH DAY	91	10	0031261
NO3	7/80	12/83	82	6TH DAY	92	10	0000000
SO4	7/80	12/83	82	6TH DAY	91	10	0000000
LEAD	7/80	12/83	82	6TH DAY	92	10	0000000
FE	7/80	12/83	82	6TH DAY	92		0000000
WS	7/80	12/83	96	HOURLY	50	10	0053000
WD	7/80	12/83	96	HOURLY	50	10	0053000
INSO	7/80	12/83	98	HOURLY	11	10	0053000
TEMP	7/80	12/83	97	HOURLY	40	10	0053000
RH	7/80	12/83		HOURLY	20	10	0053000
BSCT	7/80	12/83	96	HOURLY	11	7	0053000
VISI	7/80	9/81		OTHER		10	003000
PMF	7/80	9/81	88	6TH DAY	52	10	0031000

Comments: Site currently in operation.

SITE NAME: Death Valley - Nevares Spring
 Site Code: EMS1404003
 Site Contact: See Below
 Phone:
 Site Address: Death Valley, CA

Operating Procedures: OTHER SOP
 Representativeness: 220010

Township: 16S Range: 1E Section: 28
 Latitude: 36°31'
 Northing: 4041063
 Longitude: 116°52'
 Easting: 511938
 Contact Name: Raymond Kelso
 Agency: NWC - Code 2632
 Address: China Lake, CA 93555

Monitoring Purpose
 & Site Location: AN2PA
 Number of Sites
 in Network: 12

Phone No.: (619) 939-3411

Parameter	Sampling Period		Completeness of Data	Sampling Mode	Method Code	Comp Code	Data Quality
	Begin	End					
BSCT	10/80	7/81	98	CONTINUOUS	11	7	0000000

Comments:

SITE NAME: **Death Valley - Nevares Spring** (Cont.) Operating Procedures: OTHER SOP
 Site Code: **EMS1413002** Representativeness: 225212
 Site Contact: Pete Sanchez
 Phone: (619)786-2314
 Site Address: Death Valley, CA 92328

Township: 28N Range: 1E Section: 36
 Latitude: 36°31'
 Northing: 4041063
 Longitude: 116°52'
 Easting: 511938
 Contact Name: Dean Westman
 Agency: U.S. Army
 Address: USAEHA - APED
 Aberdeen Proving Gr., MD 21010

Monitoring Purpose
 & Site Location: AN2PA
 Number of Sites
 in Network: 1

Phone No.: (301) 671-2510

Parameter	Sampling Period		Completeness of Data	Sampling Mode	Method Code	Comp Code	Data Quality
	Begin	End					
PMC	7/80	9/81	88	6TH DAY	51	10	0031000
ELEM	7/80	9/81		6TH DAY	96	10	0000000

Comments: Site currently in operation.

Operating Procedures: OTHER SOP
Representativeness: 225112

Monitoring Purpose
& Site Location: AN2PA
Number of Sites
in Network: 2

[illegible]

Operating Procedures: OTHER SOP
Representativeness: 225221

```
Monitoring Purpose
  & Site Location: AN2MI
  Number of Sites
    in Network: 7
```

[illegible]

Operating Procedures: ARB SOP
Representativeness: 225244

Monitoring Purpose
& Site Location: AQ4CO
Number of Sites
in Network: 54

[illegible]

2- 53

SITE NAME: **El Centro**
 Site Code: **ARB1300682**
 Site Contact: Harry Dillon
 Phone: (619) 339-4314
 Site Address: 935 Broadway
 El Centro, CA 92243

Operating Procedures: ARB SOP
 Representativeness: 225244

Township: 16S Range: 14E Section: 6
 Latitude: 32°47'04"
 Northing: 3628116
 Longitude: 115°33'41"
 Easting: 634724
 Contact Name: Air Quality Data Section
 Agency: ARB - Aerometric Data Division
 Address: P.O. Box 2815
 Sacramento, CA 95812

Monitoring Purpose
 & Site Location: AQ4C0
 Number of Sites
 in Network: 54

Phone No.: (916) 445-4765

Parameter	Sampling Period		Completeness of Data	Sampling Mode	Method Code	Comp Code	Data Quality
	Begin	End					
TSP	8/71	6/83	81	6TH DAY	91	10	2143442
SO4	3/76	5/81	94	6TH DAY	92	10	2143432
SO4	5/81	5/83	87	6TH DAY	55	10	2143432
LEAD	8/73	3/76	87	6TH DAY	55	10	0143432
LEAD	4/76	12/76	85	6TH DAY	92	10	0143432
LEAD	1/77	12/83	94	6TH DAY	56	10	2143432
NO3	5/81	6/83	87	6TH DAY	57	10	2143432
NO3	3/76	5/81	94	6TH DAY	55	10	2143432
CD	8/73	3/76	78	6TH DAY	92	10	0143432
BSO	3/76	6/83	93	6TH DAY	91	10	2143432
PM15	7/80	3/83	80	6TH DAY	57	10	2143432
PM10	4/83	6/83	99	6TH DAY	58	10	2143432
IPSO	7/80	8/82	79	6TH DAY	92	10	2143432

Comments: 71,72 data unknown quality; changes in methods
 for SO4,NO3,LEAD and IP during period of data.
 PM15, PM10, special project.
 Site currently in operation.

Operating Procedures: ARB SOP
Representativeness: 225244

Monitoring Purpose
& Site Location: AQ4CO
Number of Sites
in Network: 54

Phone No.: (916) 445-4765

[illegible]

Comments: Moved to 1300685 on 4/76.

Operating Procedures: ARB SOP
Representativeness: 120000

Monitoring Purpose
& Site Location: AQ2MI
Number of Sites
in Network: 54

[illegible]

SITE NAME: **Fort Irwin**
 Site Code: **EMS3613001**
 Site Contact: See Below
 Phone:
 Site Address: TV Hill
 Fort Irwin NTC, CA 92311

Operating Procedures: OTHER SOP
 Representativeness: 225224

Township: 13N Range: 3E Section: 19
 Latitude: 35°12'04"
 Northing: 3895187
 Longitude: 116°42'28"
 Easting: 526601
 Contact Name: Dean Westman
 Agency: U.S. Army
 Address: USAEHA - APED
 Aberdeen Proving Gr., MD 21010

Monitoring Purpose
 & Site Location: AN2MI
 Number of Sites
 in Network: 2

Phone No.: (301) 671-2510

Parameter	Sampling Period		Completeness of Data	Sampling Mode	Method Code	Comp Code	Data Quality
	Begin	End					
TSP	1/80	9/81	83	6TH DAY	91	10	0031261
NO3	1/80	9/81	83	6TH DAY	92	10	0000000
SO4	1/80	9/81	83	6TH DAY	91	10	0000000
Pb	1/80	9/81	83	6TH DAY	55	10	0000000
Fe	1/80	9/81	83	6TH DAY	92	10	0000000
WS	8/80	9/81	83	HOURLY	50	10	0053000
WD	8/80	9/81	83	HOURLY	50	10	0053000
INSO	8/80	9/81	93	HOURLY	11	10	0053000
TEMP	8/80	9/81	41	HOURLY	40	10	0053000
RH	8/80	9/81	92	HOURLY	20	10	0053000
BSCT	8/80	9/81	90	HOURLY	11	7	0053000
VISI	8/80	9/81		OTHER		10	0033000
PMF	8/80	9/81	90	6TH DAY	52	10	0031000

Comments: Site now part of EPA network.

SITE NAME: **Fort Irwin**
 Site Code: **EMS3612003**
 Site Contact: See Below
 Phone:
 Site Address: TV Hill
 Fort Irwin NTC, CA 92311

Operating Procedures: OTHER SOP
 Representativeness: 225224

Township: 13N Range: 3E Section: 19
 Latitude: 35°12'04"
 Northing: 3895187
 Longitude: 116°42'28"
 Easting: 526601
 Contact Name: Ann Pitchford
 Agency: U.S. EPA
 Address: P.O. Box 15027
 Las Vegas, NV 89114

Monitoring Purpose
 & Site Location: AN2MI
 Number of Sites
 in Network: 7

Phone No.: (702) 798-2366

Parameter	Sampling Period		Completeness of Data	Sampling Mode	Method Code	Comp Code	Data Quality
	Begin	End					
WS	7/81	7/83	81	CONTINUOUS	50	10	0053221
WD	7/81	7/83	81	CONTINUOUS	50	10	0053221
TEMP	7/81	7/83	88	CONTINUOUS	40	10	0053221
BSCT	7/81	7/83	84	CONTINUOUS	11	7	0053221
DEW	7/81	7/83	76	CONTINUOUS	40	10	0053221
RH	7/81	7/83	76	CONTINUOUS	20	10	0053221

Comments:

Operating Procedures: OTHER SOP
Representativeness: 225224

Monitoring Purpose
& Site Location: AN2MI
Number of Sites
in Network: 2

[illegible]

SITE NAME: **Heber**
 Site Code: **ARB1300688**
 Site Contact: Harry Dillon
 Phone: (619) 339-4314
 Site Address: Fawcett and Ware
 Heber, CA

Operating Procedures: ARB SOP
 Representativeness: 225220

Township: 16S Range: 14E Section: 28
 Latitude: 32°43'49"
 Northing: 3622147
 Longitude: 115°32'00"
 Easting: 637435
 Contact Name: Air Quality Data Section
 Agency: ARB - Aerometric Data Division
 Address: P.O. Box 2815
 Sacramento, CA 95812

Monitoring Purpose
 & Site Location: AQ2AG
 Number of Sites
 in Network: 54

Phone No.: (916) 445-4765

Parameter	Sampling Period		Completeness of Data	Sampling Mode	Method Code	Comp Code	Data Quality
	Begin	End					
SO2	1/77	4/78	76	CONTINUOUS	20	10	0343432
H2S	1/77	11/77	88	CONTINUOUS	71	10	0143432
O3	12/76	4/78	80	CONTINUOUS	14	10	0343432

Comments: 12/76-4/78 only LLB site.

Operating Procedures: NO SOP
Representativeness: 000020

Monitoring Purpose
& Site Location: PMOIN
Number of Sites
in Network: 3

Phone No.: (619) 232-4252

[illegible]

Comments:

Operating Procedures: ARB SOP
Representativeness: 225221

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Monitoring Purpose
  & Site Location: AQ1SO
  Number of Sites
    in Network: 54
```

[illegible]

SITE NAME: **Imperial**
 Site Code: **ARB1300687**
 Site Contact: **Harry Dillon**
 Phone: **(619) 339-4314**
 Site Address: **Worthington Street**
Imperial, CA

Operating Procedures: **ARB SOP**
 Representativeness: **225220**

Township: **15S** Range: **14E** Section: **18**
 Latitude: **32°50'55"**
 Northing: **3635229**
 Longitude: **115°33'45"**
 Easting: **634523**
 Contact Name: **Air Quality Data Section**
 Agency: **ARB - Aerometric Data Division**
 Address: **P.O. Box 2815**
Sacramento, CA 95812

Monitoring Purpose
 & Site Location: **AQ2RE**
 Number of Sites
 in Network: **54**

Phone No.: **(916) 445-4765**

Parameter	Sampling Period		Completeness of Data	Sampling Mode	Method Code	Comp Code	Data Quality
	Begin	End					
NOX	4/77	4/78	81	CONTINUOUS	14	10	0143432
SO2	1/77	4/78	88	CONTINUOUS	20	10	0343432
H2S	1/77	11/77	96	CONTINUOUS	71	10	0143432
O3	12/76	4/78	90	CONTINUOUS	14	10	0343432
NO	4/77	4/78	81	CONTINUOUS	14	10	0143432
NO2	4/77	4/78	81		98	10	0343432

Comments: **12/76-4/78 only, LLB site.**
Limited H2S data.

Operating Procedures: ARB SOP
Representativeness: 225112

Monitoring Purpose
& Site Location: RAISO
Number of Sites
in Network: 54

Phone No.: (916) 445-4765

[illegible]

Comments: Site currently in operation.

Operating Procedures: ARB SOP
Representativeness: 005212

Monitoring Purpose
& Site Location: RAISO
Number of Sites
in Network: 54

[illegible]

2- 65

Operating Procedures: ARB SOP
Representativeness: 225211

Monitoring Purpose
& Site Location: RAISO
Number of Sites
in Network: 54

Phone No.: (916) 445-4765

[illegible]

Comments: Temp has not been reduced from charts.
Hardcopy met data only; not included in data base.

SITE NAME: **Indio**
 Site Code: **ARB3300139**
 Site Contact: **Anthony Hernandez**
 Phone: **(818) 572-6383**
 Site Address: **46290 Oasis Street**
Indio, CA

Operating Procedures: **ARB SOP**
 Representativeness: **225234**

Township: **5S** Range: **7E** Section: **25**
 Latitude: **33°42'52"**
 Northing: **3730577**
 Longitude: **116°13'00"**
 Easting: **572583**
 Contact Name: **Air Quality Data Section**
 Agency: **ARB - Aerometric Data Division**
 Address: **P.O. Box 2815**
Sacramento, CA 95812

Monitoring Purpose
 & Site Location: **AQ4C0**
 Number of Sites
 in Network: **54**

Phone No.: **(916) 445-4765**

Parameter	Sampling Period		Completeness of Data	Sampling Mode	Method Code	Comp Code	Data Quality
	Begin	End					
TSP	1/70	12/82	86	6TH DAY	91	10	2143442
NO3	1/74	4/78	40	6TH DAY	55	10	0143432
NO3	1/76	6/76	102	6TH DAY	58	10	0143432
NO3	9/76	12/82	72	6TH DAY	57	10	2143432
SO4	1/74	5/78	61	6TH DAY	92	10	0143432
SO4	7/76	12/82	71	6TH DAY	55	10	2143432
LEAD	7/74	12/75	96	6TH DAY	55	10	0143432
LEAD	7/78	12/82	85	6TH DAY	56	10	2143432
LEAD	1/76	6/82	43	6TH DAY	92	10	2143432
NOX	3/71	2/77	88	CONTINUOUS	11	10	0143432
NOX	5/75	6/79	80	CONTINUOUS	14	10	0143432
CO	3/71	12/76	72	CONTINUOUS	12	10	0343432
CO	1/77	6/79	78	CONTINUOUS	11	10	0343432

Comments: **Hardcopy met data may be available; one years data included.**
Site currently in operation.

Operating Procedures: ARB SOP
Representativeness:

Monitoring Purpose
& Site Location: AQOUU
Number of Sites
in Network: 54

[illegible]

Operating Procedures: ARB SOP
Representativeness: 225234

Monitoring Purpose
& Site Location: QA2RE
Number of Sites
in Network: 54

[illegible]

SITE NAME: **Indio** (Cont.)
 Site Code: **ARB3300139**
 Site Contact: Anthony Hernandez
 Phone: (818) 572-6383
 Site Address: 46290 Oasis Street
 Indio, CA

Operating Procedures: ARB SOP
 Representativeness: 225234

Township: 5S Range: 7E Section: 25
 Latitude: 33°42'52"
 Northing: 3730577
 Longitude: 116°13'00"
 Easting: 572583
 Contact Name: Air Quality Data Section
 Agency: ARB - Aerometric Data Division
 Address: P.O. Box 2815
 Sacramento, CA 95812

Monitoring Purpose
 & Site Location: AQ4C0
 Number of Sites
 in Network: 54

Phone No.: (916) 445-4765

Parameter	Sampling Period		Completeness of Data	Sampling Mode	Method Code	Comp Code	Data Quality
	Begin	End					
SO2	5/72	12/72	94	CONTINUOUS	14	10	0343432
SO2	10/76	12/77	99	CONTINUOUS	16	10	0343432
THC	9/71	6/79	80	CONTINUOUS	11	10	0143432
O3	5/75	9/83	84	CONTINUOUS	14	10	2343432
OX	3/71	2/76	95	CONTINUOUS	14	10	0143432
COH	3/71	6/79	44	CONTINUOUS	81	10	0143432
NO	6/71	2/77	90	CONTINUOUS	11	10	0143432
NO	2/77	6/79	95	CONTINUOUS	98	10	0143432
NO	5/75	10/76	68	CONTINUOUS	14	10	0143432
NO2	5/71	2/77	93	CONTINUOUS	11	10	0343432
NO2	5/75	6/79	80	CONTINUOUS	14	10	0343432
STOT	1/78	6/79	93	CONTINUOUS	16	10	0143432

Comments: Hardcopy met data may be available; one years data included.
 Site currently in operation.

Operating Procedures: OTHER SOP
Representativeness: 225223

Monitoring Purpose
& Site Location: AN2SO
Number of Sites
in Network: 7

Operating Procedures: OTHER SOP
Representativeness: 225112

Monitoring Purpose
& Site Location: AN2PA
Number of Sites
in Network: 2

[illegible]

Operating Procedures: ARB SOP
Representativeness: 225222

```
Monitoring Purpose
  & Site Location: AQ2SO
  Number of Sites
    in Network: 54
```

[illegible]

Operating Procedures: ARB SOP
Representativeness: 225244

Monitoring Purpose
& Site Location: RA3RE
Number of Sites
in Network: 54

SITE NAME: Lancaster
 Site Code: ARB7000082
 Site Contact: Anthony Hernandez
 Phone: (818) 572-6383
 Site Address: 45547 Beech Street
 Lancaster, CA

Operating Procedures: ARB SOP
 Representativeness: 224234

Township: 7N Range: 12W Section: 15
 Latitude: 34°42'44"
 Northing: 3841524
 Longitude: 118°08'21"
 Easting: 395682
 Contact Name: Air Quality Data Section
 Agency: ARB - Aerometric Data Division
 Address: P.O. Box 2815
 Sacramento, CA 95812

Monitoring Purpose
 & Site Location: AQ3NU
 Number of Sites
 in Network: 54

Phone No.: (916) 445-4765

Parameter	Sampling Period		Completeness of Data	Sampling Mode	Method Code	Comp Code	Data Quality
	Begin	End					
TSP	1/75	8/83	96	6TH DAY	91	10	2143442
RUD	1/78	6/81			91	10	2143432
SULF	1/75	6/76	99	DAILY	92	10	0143432
SULF	7/76	8/83	95	DAILY	55	10	2143432
LEAD	1/75	7/82	53	DAILY	92	10	2143432
LEAD	7/78	8/83	83	DAILY	56	10	2143432
NOX	12/70	12/77	92	CONTINUOUS	11	10	0143432
NOX	1/82	9/83	89	CONTINUOUS	14	10	2143432
NOX	1/78	6/81	92	CONTINUOUS	99	10	2143432
NOX	7/81	12/81	92	CONTINUOUS	98	10	2143432
CO	7/70	12/76	98	CONTINUOUS	12	10	0343432
CO	1/77	9/83	97	CONTINUOUS	11	10	2343432
SO2	1/76	12/76	78	CONTINUOUS	15	10	0343432

Comments: 2 lead methods combined eliminate data gaps.
 Hi-vol 0.6m from building
 meets other representativeness.
 Met data may be available. Site currently in operation.

SITE NAME: **Lancaster** (Cont.)
 Site Code: **ARB7000082**
 Site Contact: **Anthony Hernandez**
 Phone: **(818) 572-6383**
 Site Address: **45547 Beech Street**
Lancaster, CA

Operating Procedures: **ARB SOP**
 Representativeness: **224234**

Township: **7N** Range: **12W** Section: **15**
 Latitude: **34°42'44"**
 Northing: **3841524**
 Longitude: **118°08'21"**
 Easting: **395682**
 Contact Name: **Air Quality Data Section**
 Agency: **ARB - Aerometric Data Division**
 Address: **P.O. Box 2815**
Sacramento, CA 95812

Monitoring Purpose
 & Site Location: **AQ3NU**
 Number of Sites
 in Network: **54**

Phone No.: **(916) 445-4765**

Parameter	Sampling Period		Completeness of Data	Sampling Mode	Method Code	Comp Code	Data Quality
	Begin	End					
SO2	1/77	2/77	62	CONTINUOUS	13	10	0343432
THC	7/70	12/77	97	CONTINUOUS	11	10	0143432
THC	1/78	2/83	87	CONTINUOUS	14	10	2143432
O3	12/78	9/83	87	CONTINUOUS	14	10	2343432
NO	12/70	6/81	93	CONTINUOUS	11	10	2143432
NO	7/81	12/83	89	CONTINUOUS	14	10	2143432
NO2	12/70	6/81	93	CONTINUOUS	11	10	2343432
NO2	7/81	12/81	92	CONTINUOUS	14	10	2343432
NO2	1/82	12/83	88	CONTINUOUS	98	10	2343432
NMHC	1/78	1/83	88	CONTINUOUS	14	10	2143432
CH4	1/78	2/83	86	CONTINUOUS	14	10	2143432
COH	1/78	6/81	92	CONTINUOUS	81	10	2143432
NO3	1/75	6/76	99	DAILY	59	10	0143432

Comments: 2 lead methods combined eliminate data gaps.
 Hi-vol 0.6m from building
 meets other representativeness.
 Met data may be available. Site currently in operation.

Operating Procedures: ARB SOP
Representativeness: 224234

Monitoring Purpose
& Site Location: AQ3NU
Number of Sites
in Network: 54

[illegible]

Operating Procedures: ARB SOP
Representativeness: 115222

Monitoring Purpose
& Site Location: AQ250
Number of Sites
in Network: 54

Phone No.: (916) 445-4765

[illegible]

Comments:

Operating Procedures: ARB SOP
Representativeness: 225034

Monitoring Purpose
& Site Location: AQ2UU
Number of Sites
in Network: 54

Operating Procedures: ARB SOP
Representativeness: 225222

Monitoring Purpose
& Site Location: AQ250
Number of Sites
in Network: 54

[illegible]

Operating Procedures: ARB SOP
Representativeness: 225222

Monitoring Purpose
& Site Location: AQ2SO
Number of Sites
in Network: 54

[illegible]

2- 81

Operating Procedures: ARB SOP
Representativeness: 001212

Monitoring Purpose
& Site Location: AQ2VE
Number of Sites
in Network: 54

[illegible]

SITE NAME: **Lone Pine**
 Site Code: **ARB1400694**
 Site Contact: Chuck Fryxell
 Phone: (619) 872-8211
 Site Address: 1452 S. Main
 Lone Pine, CA 93545

Operating Procedures: ARB SOP
 Representativeness: 220010

Township: 13S Range: 36E Section: 34
 Latitude: 36°45'45"
 Northing: 4068842
 Longitude: 118°03'15"
 Easting: 405910
 Contact Name: Air Quality Data Section
 Agency: ARB - Aerometric Data Division
 Address: P.O. Box 2815
 Sacramento, CA 95812

Monitoring Purpose
 & Site Location: AQOUU
 Number of Sites
 in Network: 54

Phone No.: (916) 445-4765

Parameter	<u>Sampling Period</u>		Completeness of Data	Sampling Mode	Method Code	Comp Code	Data Quality
	Begin	End					
TSP	11/78	10/79	88	6TH DAY	91		0143442

Comments: Probably moved to 13-698 in 79. 1978 data may be invalid

Operating Procedures: ARB SOP
Representativeness: 115220

```
Monitoring Purpose
  & Site Location: AQ2AP
  Number of Sites
    in Network: 54
```

Phone No.: (916) 445-4765

[illegible]

Comments:

Operating Procedures: ARB SOP
Representativeness: 115220

```
Monitoring Purpose
  & Site Location: AQ2IN
  Number of Sites
    in Network: 54
```

[illegible]

2- 85

Operating Procedures: OTHER SOP
Representativeness: 225111

Monitoring Purpose
& Site Location: PM2IN
Number of Sites
in Network: 3

[illegible]

Operating Procedures: OTHER SOP
Representativeness: 225112

Monitoring Purpose
& Site Location: PM2IN
Number of Sites
in Network: 3

[illegible]

Comments:

SITE NAME: **Lucerne Valley**
 Site Code: **EMS3601003**
 Site Contact: See Below
 Phone:
 Site Address: La Fon Ranch
 Lucerne Valley, CA 92356

Operating Procedures: OTHER SOP
 Representativeness: 225212

Township: 4N Range: 1E Section: 17
 Latitude: 34°25'55"
 Northing: 3809860
 Longitude: 116°53'34"
 Easting: 509852
 Contact Name: Andrew A. Huang
 Agency: Southern Calif. Edison, R&D
 Address: 2244 Walnut Grove Avenue
 P.O. Box 800
 Rosemead, CA 91770

Monitoring Purpose
 & Site Location: PM2IN
 Number of Sites
 in Network: 3

Phone No.: (818) 572-4165

Parameter	Sampling Period		Completeness of Data	Sampling Mode	Method Code	Comp Code	Data Quality
	Begin	End					
TSP	1/80	9/81		6TH DAY	91	10	1333421
SSI	1/80	9/81		6TH DAY	58	10	1333421
SULF	1/80	9/81		6TH DAY	91	10	1333421
VISI	1/80	9/81		OTHER			0020021
NOX	1/80	9/81		CONTINUOUS	28	10	3253431
SO2	1/80	9/81		CONTINUOUS	24	10	3253431
O3	1/80	9/81		CONTINUOUS	14	10	3253431
WS	1/80	9/81		CONTINUOUS	50	10	3353221
WD	1/80	9/81		CONTINUOUS	50	10	3353221
TEMP	1/80	9/81		CONTINUOUS	40	10	3353221
INSO	1/80	9/81		CONTINUOUS	11	10	3353221
SIGM	1/80	9/81		CONTINUOUS	20	10	3353221
STAB	1/80	9/81		CONTINUOUS			0053221

Comments:

Operating Procedures: OTHER SOP
Representativeness: 225212

Monitoring Purpose
& Site Location: PM2IN
Number of Sites
in Network: 3

Phone No.: (818) 572-4165

[illegible]

Comments:

Operating Procedures: ARB SOP
Representativeness: 115220

```
Monitoring Purpose
  & Site Location: AQ3AP
  Number of Sites
    in Network: 54
```

[illegible]

Operating Procedures: ARB SOP
Representativeness: 005023

Monitoring Purpose
& Site Location: AQ3PA
Number of Sites
in Network: 54

[illegible]

Operating Procedures: ARB SOP
Representativeness: 225023

Monitoring Purpose
& Site Location: AQ3PA
Number of Sites
in Network: 54

[illegible]

Operating Procedures: ARB SOP
Representativeness: 225222

Monitoring Purpose
& Site Location: RA2CO
Number of Sites
in Network: 54

Phone No.: (916) 445-4765

[illegible]

Comments: State fish hatchery next door.
Site currently in operation.

Operating Procedures: ARB SOP
Representativeness: 225214

Monitoring Purpose
& Site Location: AQLPA
Number of Sites
in Network: 54

[illegible]

Operating Procedures: ARB SOP
Representativeness: 005234

Monitoring Purpose
& Site Location: AQ2SO
Number of Sites
in Network: 54

Phone No.: (916) 445-4765

[illegible]

Comments:

Operating Procedures: OTHER SOP
Representativeness: 220010

Monitoring Purpose
& Site Location: AN2MI
Number of Sites
in Network: 12

[illegible]

Operating Procedures: ARB SOP
Representativeness: 225224

Monitoring Purpose
& Site Location: AQ2AP
Number of Sites
in Network: 54

[illegible]

Operating Procedures: ARB SOP
Representativeness: 225032

Monitoring Purpose
& Site Location: AQ250
Number of Sites
in Network: 54

Phone No.: (916) 445-4765

[illegible]

Comments:

SITE NAME: **Mono Lake Simis**
 Site Code: **ARB2600782**
 Site Contact: Chuck Fryxell
 Phone: (619)872-8211
 Site Address: Highway 167
 Mono Lake, CA

Operating Procedures: ARB SOP
 Representativeness: 005222

Township: 3N Range: 27E Section: 20
 Latitude: 38°06'00"
 Northing: 4218641
 Longitude: 119°01'30"
 Easting: 322439
 Contact Name: Air Quality Data Section
 Agency: ARB - Aerometric Data Division
 Address: P.O. Box 2815
 Sacramento, CA 95812

Monitoring Purpose
 & Site Location: AQ2PA
 Number of Sites
 in Network: 54

Phone No.: (916) 445-4765

Parameter	Sampling Period		Completeness of Data	Sampling Mode	Method Code	Comp Code	Data Quality
	Begin	End					
TSP	11/81	1/83	55	6TH DAY	91	10	2143442
PM15	6/82	1/83	56	6TH DAY	57	10	2143432
IPSO	6/82	8/82	65	6TH DAY	27	10	2143432

Comments: Hi-vol 12/81-6/82 only, PM special study
 Site currently in operation.

Operating Procedures: ARB SOP
Representativeness: 005144

Monitoring Purpose
& Site Location: AQ4CO
Number of Sites
in Network: 54

[illegible]

Operating Procedures: ARB SOP
Representativeness: 115020

Monitoring Purpose
& Site Location: AQ3RE
Number of Sites
in Network: 54

[illegible]

Operating Procedures: ARB SOP
Representativeness: 225220

Monitoring Purpose
& Site Location: AQ250
Number of Sites
in Network: 54

[illegible]

Operating Procedures: ARB SOP
Representativeness:

Monitoring Purpose
& Site Location: AQOUU
Number of Sites
in Network: 54

Phone No.: (916) 445-4765

[illegible]

Comments: Location co-ordinates not available.

SITE NAME: **Palm Springs - Fire Station**
 Site Code: **ARB3300137**
 Site Contact: **Anthony Hernandez**
 Phone: **(818) 572-6383**
 Site Address: **590 Raquet Club**
Palm Springs, CA 92262

Operating Procedures: **ARB SOP**
 Representativeness: **225244**

Township: **4S** Range: **4E** Section: **2**
 Latitude: **33°51'00"**
 Northing: **3745425**
 Longitude: **116°32'30"**
 Easting: **542401**
 Contact Name: **Air Quality Data Section**
 Agency: **ARB - Aerometric Data Division**
 Address: **P.O. Box 2815**
Sacramento, CA 95812

Monitoring Purpose
 & Site Location: **AQ3RE**
 Number of Sites
 in Network: **54**

Phone No.: **(916) 445-4765**

Parameter	Sampling Period		Completeness of Data	Sampling Mode	Method Code	Comp Code	Data Quality
	Begin	End					
TSP	1/71	8/83	76	6TH DAY	91	10	2143442
SO4	1/74	5/78	60	6TH DAY	92	10	0143432
SO4	7/76	8/83	74	6TH DAY	55	10	2143432
LEAD	1/76	6/82	24	6TH DAY	92	10	2143432
LEAD	7/78	8/83	88	6TH DAY	56	10	2143432
NOX	6/71	1/75	90	CONTINUOUS	11	10	0143432
NOX	7/79	9/83	89	CONTINUOUS	14	10	2143432
CO	5/71	12/76	51	CONTINUOUS	12	10	0343432
CO	1/77	9/83	98	CONTINUOUS	11	10	2343432
THC	6/71	9/83	48	CONTINUOUS	11	10	2143432
THC	5/80	12/82	93	CONTINUOUS	14	10	2143432
O3	1/75	9/83	97	CONTINUOUS	14	10	2343432
NO3	1/74	4/78	32	6TH DAY	55	10	0143432

Comments: 82 CO by method 7; 2 THC methods eliminate data gaps; 2 SO4 methods eliminate data gaps.
 2 lead methods eliminate data gaps.
 Met data may be available. Site currently in operation.

SITE NAME: **Palm Springs - Fire Station (Cont.)** Operating Procedures: ARB SOP
 Site Code: **ARB3300137** Representativeness: 225244
 Site Contact: Anthony Hernandez
 Phone: (818) 572-6383
 Site Address: 590 Raquet Club
 Palm Springs, CA 92262

Township: 4S Range: 4E Section: 2
 Latitude: 33°51'00"
 Northing: 3745425
 Longitude: 116°32'30"
 Easting: 542401
 Contact Name: Air Quality Data Section
 Agency: ARB - Aerometric Data Division
 Address: P.O. Box 2815
 Sacramento, CA 95812

Monitoring Purpose
 & Site Location: AQ3RE
 Number of Sites
 in Network: 54

Phone No.: (916) 445-4765

Parameter	Sampling Period		Completeness of Data	Sampling Mode	Method Code	Comp Code	Data Quality
	Begin	End					
NO3	9/76	8/83	75	6TH DAY	57	10	2143432
NO3	1/76	10/76	71	6TH DAY	58	10	0143432
NO3	7/76	3/77	77	6TH DAY	59	10	0143432
COH	6/71	6/81	22	CONTINUOUS	81	10	2143432
NO	6/71	1/75	90	CONTINUOUS	11	10	0143432
NO	7/79	12/81	86	CONTINUOUS	98	10	2143432
NO	1/82	9/83	93	CONTINUOUS	14	10	2143432
NO2	4/71	1/75	92	CONTINUOUS	11	10	0343432
NO2	7/82	9/83	93	CONTINUOUS	98	10	2343432
NO2	7/79	12/81	88	CONTINUOUS	14	10	2343432
OX	3/71	1/75	94	CONTINUOUS	14	10	0143432
SO2	7/79	10/80	94	CONTINUOUS	14	10	2143432
SO2	11/80	9/83	96	CONTINUOUS	20	10	2143432

Comments: 82 CO by method 7; 2 THC methods eliminate data gaps; 2 SO4 methods eliminate data gaps.
 2 lead methods eliminate data gaps.
 Met data may be available. Site currently in operation.

SITE NAME: **Palo Verde**
 Site Code: **ARB3300153**
 Site Contact: Harry Dillon
 Phone: (619) 339-4314
 Site Address: Palo Verde, CA

Operating Procedures: ARB SOP
 Representativeness:

Township: 9S Range: 21E Section: 2
 Latitude: 33°26'00"
 Northing: 3701441
 Longitude: 114°43'45"
 Easting: 711115
 Contact Name: Air Quality Data Section
 Agency: ARB - Aerometric Data Division
 Address: P.O. Box 2815
 Sacramento, CA 95812

Monitoring Purpose
 & Site Location: RAOUU
 Number of Sites
 in Network: 54

Phone No.: (916) 445-4765

Parameter	Sampling Period		Completeness of Data	Sampling Mode	Method Code	Comp Code	Data Quality
	Begin	End					
COH	9/77	12/77	45	CONTINUOUS	81	10	0143432
CO	9/77	12/77	86	CONTINUOUS	11	10	0143432
SO2	9/77	12/77	96	CONTINUOUS	20	10	0143432
NO	9/77	12/77	80	CONTINUOUS	14	10	0143432
NO2	9/77	12/77	79	CONTINUOUS	98	10	0143432
NOX	9/77	12/77	79	CONTINUOUS	14	10	0143432
THC	9/77	12/77	80		11	10	0143432
O3	9/77	12/77	88		14	10	0143432
TSP	9/77	12/77	89	6TH DAY	91	10	0143442
LEAD	9/77	12/77	89	6TH DAY	92	10	0143432
NO3	9/77	12/77	84	6TH DAY	55	10	0143432
SULF	9/77	12/77	89	6TH DAY	92	10	0143432

Comments:

Operating Procedures: OTHER SOP
Representativeness: 220030

Monitoring Purpose
& Site Location: PMOU
Number of Sites
in Network: 3

[illegible]

Operating Procedures: OTHER SOP
Representativeness: 220030

Monitoring Purpose
& Site Location: PMOUU
Number of Sites
in Network: 3

[illegible]

Operating Procedures: ARB SOP
Representativeness: 225220

Monitoring Purpose
& Site Location: AQ2RE
Number of Sites
in Network: 54

[illegible]

Operating Procedures: ARB SOP
Representativeness:

Monitoring Purpose
& Site Location: AQOUU
Number of Sites
in Network: 54

[illegible]

SITE NAME: Trona
 Site Code: ARB3600188
 Site Contact: Robert Ramirez
 Phone: (619) 245-4247
 Site Address: 13214 Market Street
 Trona, CA 93562

Operating Procedures: ARB SOP
 Representativeness: 225244

Township: 25S Range: 43E Section: 20
 Latitude: 35°44'33"
 Northing: 3955254
 Longitude: 117°22'34"
 Easting: 465991

Contact Name: Air Quality Data Section
 Agency: ARB - Aerometric Data Division
 Address: P.O. Box 2815
 Sacramento, CA 95812

Monitoring Purpose
 & Site Location: AQ4IN
 Number of Sites
 in Network: 54

Phone No.: (916) 445-4765

Parameter	Sampling Period		Completeness of Data	Sampling Mode	Method Code	Comp Code	Data Quality
	Begin	End					
TSP	3/76	8/83	62	6TH DAY	91	10	2143442
SULF	3/76	4/78	43	6TH DAY	92	10	0143432
SULF	5/78	12/83	78	6TH DAY	55	10	2143432
LEAD	1/79	8/83	80	6TH DAY	56	10	2143432
LEAD	3/76	6/82	14	6TH DAY	92	10	0143432
NOX	9/79	10/83	52	CONTINUOUS	14	10	2143432
CO	7/79	2/82	77	CONTINUOUS	11	10	2343432
SO2	10/80	12/83	86	CONTINUOUS	20	10	2343432
SO2	1/78	1/78	57	CONTINUOUS	14	10	0343432
H2S	7/81	10/83	80	CONTINUOUS	71	10	2143432
O3	9/79	10/83	78	CONTINUOUS	14	10	2343432
O3	1/78	1/78	88	CONTINUOUS	11	10	0343432
NO2	9/79	10/81	33	CONTINUOUS	14	10	2343432

Comments: Some pre 79 gas data available.
 WSPD, WDIR data at APCD.
 Hard copy only.
 Met data may be available. Site currently in operation.

Operating Procedures: OTHER SOP
Representativeness: 220010

Monitoring Purpose
& Site Location: AN2MI
Number of Sites
in Network: 12

Phone No.: (619) 939-3411

[illegible]

Comments:

SITE NAME: **Trona (Cont.)**
 Site Code: **ARB3600188**
 Site Contact: Robert Ramirez
 Phone: (619) 245-4247
 Site Address: 13214 Market Street
 Trona, CA 93562

Operating Procedures: ARB SOP
 Representativeness: 225244

Township: 25S Range: 43E Section: 20
 Latitude: 35°44'33"
 Northing: 3955254
 Longitude: 117°22'34"
 Easting: 465991

Contact Name: Air Quality Data Section
 Agency: ARB - Aerometric Data Division
 Address: P.O. Box 2815
 Sacramento, CA 95812

Monitoring Purpose
 & Site Location: AQ4IN
 Number of Sites
 in Network: 54

Phone No.: (916) 445-4765

Parameter	Sampling Period		Completeness of Data	Sampling Mode	Method Code	Comp Code	Data Quality
	Begin	End					
NO2	1/82	10/83	78	CONTINUOUS	98	10	2343432
NO3	3/76	4/78	40	6TH DAY	55	10	0143432
NO3	5/78	8/83	78	6TH DAY	57	10	2143432
COH	1/78	2/78	47	CONTINUOUS	81	10	0143432
NO	9/79	10/81	32	CONTINUOUS	98	10	2143432
NO	1/82	10/83	76	CONTINUOUS	14	10	2143432

Comments: Some pre 79 gas data available.
 WSPD, WDIR data at APCD.
 Hard copy only.
 Met data may be available. Site currently in operation.

Operating Procedures: OTHER SOP
Representativeness: 220010

```
Monitoring Purpose
  & Site Location: AN2MI
  Number of Sites
    in Network: 12
```

[illegible]

SITE NAME: **Twentynine Palms - Adobe**
 Site Code: **ARB3600191**
 Site Contact: Robert Ramirez
 Phone: (619) 245-4247
 Site Address: 6078 Adobe Road
 Twentynine Palms, CA 92277

Operating Procedures: ARB SOP
 Representativeness: 225234

Township: 1N Range: 9E Section: 28
 Latitude: 34°08'34"
 Northing: 3778196
 Longitude: 116°03'14"
 Easting: 587228
 Contact Name: Air Quality Data Section
 Agency: ARB - Aerometric Data Division
 Address: P.O. Box 2815
 Sacramento, CA 95812

Monitoring Purpose
 & Site Location: AQ4C0
 Number of Sites
 in Network: 54

Phone No.: (916) 445-4765

Parameter	Sampling Period		Completeness of Data	Sampling Mode	Method Code	Comp Code	Data Quality
	Begin	End					
TSP	4/78	8/83	95	6TH DAY	91	10	2143442
SULF	5/78	8/83	95	6TH DAY	55	10	2143432
SULF	4/78	4/78	80	6TH DAY	92	10	0143432
LEAD	7/78	8/83	86	6TH DAY	56	10	2143432
LEAD	4/78	6/82	16	6TH DAY	92	10	2143432
NO3	4/78	4/78	80	6TH DAY	55	10	0143432
NO3	5/78	8/83	95	6TH DAY	57	10	2143432
CO	3/78	12/82	86	CONTINUOUS	11	10	2343432
O3	3/78	9/80	95	CONTINUOUS	11	10	2343432
O3	10/80	10/83	94	CONTINUOUS	14	10	2343432

Comments: WDIR,WSPD probably at APCD. Two types of
 lead data; some overlaps.
 Met data may be available. Site currently in operation.

SITE NAME: **Victorville**
 Site Code: **ARB3600168**
 Site Contact: Robert Ramirez
 Phone: (619) 245-4247
 Site Address: 15569 8th Street
 Victorville, CA 92392

Operating Procedures: ARB SOP
 Representativeness: 225244

Township: 5N Range: 4W Section: 10
 Latitude: 34°32'05"
 Northing: 3821290
 Longitude: 117°17'35"
 Easting: 473107
 Contact Name: Air Quality Data Section
 Agency: ARB - Aerometric Data Division
 Address: P.O. Box 2815
 Sacramento, CA 95812

Monitoring Purpose
 & Site Location: AQ4C0
 Number of Sites
 in Network: 54

Phone No.: (916) 445-4765

Parameter	Sampling Period		Completeness of Data	Sampling Mode	Method Code	Comp Code	Data Quality
	Begin	End					
TSP	1/76	12/77	93	6TH DAY	91	10	0143442
SULF	1/75	12/77	93	6TH DAY	92	10	0143432
LEAD	1/76	12/77	94	6TH DAY	92	10	0143432
NOX	10/73	12/77	89	CONTINUOUS	11	10	0143432
CO	10/73	12/76	88	CONTINUOUS	12	10	0343432
CO	1/77	12/77	89	CONTINUOUS	11	10	0343432
NO3	1/76	12/77	81	6TH DAY	55	10	0143432
O3	10/73	12/77	93	CONTINUOUS	11	10	0343432
COH	4/69	12/77	37	CONTINUOUS	81	10	0143432
OX	5/68	12/73	77	CONTINUOUS	14	10	0143432
NO	10/73	12/76	89	CONTINUOUS	11	10	0143432
NO	1/77	12/77	86	CONTINUOUS	99	10	0143432
NO2	10/73	12/77	91	CONTINUOUS	11	10	0343432

Comments: Met data may be available.

SITE NAME: **Victorville - Fair Grounds**
 Site Code: **ARB3600190**
 Site Contact: Robert Ramirez
 Phone: (619) 245-4247
 Site Address: 14800 7th Street
 Victorville, CA 92392

Operating Procedures: ARB SOP
 Representativeness: 225244

Township: 5N Range: 4W Section: 17
 Latitude: 34°31'29"
 Northing: 3820187
 Longitude: 117°18'52"
 Easting: 471141
 Contact Name: Air Quality Data Section
 Agency: ARB - Aerometric Data Division
 Address: P.O. Box 2815
 Sacramento, CA 95812

Monitoring Purpose
 & Site Location: AQ4C0
 Number of Sites
 in Network: 54

Phone No.: (916) 445-4765

Parameter	Sampling Period		Completeness of Data	Sampling Mode	Method Code	Comp Code	Data Quality
	Begin	End					
TSP	1/78	8/83	96	6TH DAY	91	10	2143442
SULF	5/78	8/83	96	6TH DAY	55	10	2143432
SULF	1/78	4/78	95	6TH DAY	92	10	0143432
LEAD	7/78	8/83	86	6TH DAY	56	10	2143432
LEAD	1/78	6/82	22	6TH DAY	92	10	0143432
NOX	1/79	10/83	61	CONTINUOUS	14	10	2143432
CO	1/78	11/82	82	CONTINUOUS	11	10	2143432
O3	1/78	12/80	89	CONTINUOUS	11	10	2143432
O3	10/80	11/83	88	CONTINUOUS	14	10	2143432
COH	1/78	9/80			81	10	2143432
NO3	1/78	10/79	22	6TH DAY	55	10	0143432
NO3	5/78	8/83	95	6TH DAY	57	10	2143432
NO2	1/79	10/83	50	CONTINUOUS	98	10	2143432

Comments: One month gap in NO3 method 57, filled by method 55 in 1979.
 Overlap in lead methods reduce some data gaps.
 Met data may be available. Site currently in operation.

Site Contact: Robert Ramirez
Phone: (619) 245-4247
Site Address: 14800 7th Street
Victorville, CA

Contact Name: Air Quality Data Section
Agency: ARB - Aerometric Data Division
Address: P.O. Box 2815
Sacramento, CA 95812

Monitoring Purpose
& Site Location: AQ4C0
Number of Sites
in Network: 54

Phone No.: (916) 445-4765

[illegible]

Comments: One month gap in NO3 method 57, filled by method 55 in 1979.
Overlap in lead methods reduce some data gaps.
Met data may be available. Site currently in operation.

Operating Procedures: ARB SOP
Representativeness: 225224

Monitoring Purpose
& Site Location: AQ2SO
Number of Sites
in Network: 54

[illegible]

2-119

3.0 SUPPLEMENTARY CATALOGUE

The main data base includes all air quality and visibility data for the California desert. The relevant information is catalogued in the main body of the Catalogue. Substantial additional information has been obtained and is presented in a supplementary data base. These data are included only as a service to the end users, and resources were not available to compile an extensive catalogue, such as the main catalogue, for these sites. In addition, the variety of data types - hourly meteorological, emission inventory, etc - precluded the compilation of a common data base. Thus, the supplementary data base is a compendium of several types of data in separate files. The format for all files are described in the data base documentation included with the data tape. Typically, the same format in which the data were received have been retained, without alterations; no common data format was designed. The following information is provided on each file to facilitate its use.

3.1 Meteorological Data

Sites, Location, and Period

1. Bishop; 37 22 N, 118 22W; 1948-80
2. China Lake; 35 41N, 117 41W; 1945-80
3. Cuddeback; -----; 1963-70
4. Edwards Air Force Base; 34 54N, 117 52W; 1949-70
5. George Air Force Base; T 06N, R 05W23; 1950-70
6. Needles; 34 46N, 114 37W; 1948-64
7. Blythe; 33 37N, 114 36W; 1948-54, 1970-80

8. Silver Lake; --- -----; 1948-50
9. Thermal; 33 38N, 116 10W; 1950-54
10. Mojave; 35 03N, 118 10W; 1955-58

Parameters:

Ceiling height and indicator

Horizontal visibility

Wind direction

Wind speeds

Dry and Wet bulb temperatures

Dew point

Relative humidity

Sea level pressure

Station pressure

Sky condition

Total sky cover

Total opaque sky cover

Amount of lowest cloud layer

Type lowest cloud or obscuring phenomena

Height of base of lowest cloud or obscuring phenomena

Amount of second cloud layer

Type of cloud-second layer

Height of base of second cloud layer

Summation of first two cloud layers

Amount of third cloud layer

Type of cloud -third layer

Height of base third cloud layer

Summation of first three cloud layers

Amount of fourth cloud layer

Type of cloud -fourth layer

Height of base fourth cloud layer

Occurrence of thunderstorm, tornado, or squall

Occurrence of rain, rain showers, or freezing rain

Occurrence of rainsqualls, rain drizzle, or freezing drizzle

Occurrence of snow, snow pellets, or ice crystals

Occurrence of snow showers, snow squalls, or snow snow grains

..Occurrence of sleet, sleetshowers, or hail

Occurrence of fog, blowing dust, or blowing sand

Occurrence of smoke, haze, smoke and haze, dust, blowing snow, or blowing spray

Contact: NWS, Ashville, NC Tel: 704 259 0682

3.1.1 Micrometeorology Data

Site, Location, and Period

Edwards Air Force Base; 34 54N, 117 52W; 1980

Parameters: Wind speed and direction, temperature.

Contact: Lt.Tongue, EAFB, CA, Tel: 805 277 4507

3.2 Upper Air Data

Site, Location, and Period

Edwards Air Force Base; 34 54N, 117 52W; 1980

Parameters: Wind speed and direction, temperature.

Contact: Marian Doran, EAFB, Tel:805 277 4244

Comments: Only a sample of the data has been included; additional sample may be obtained by contacting the person above.

3.3 Emissions Inventory

Site, Location, and Period

Great Basin Valley and South East Desert Air Basins, 1979

Parameters: All point and area sources; includes criteria pollutants, hydrocarbons, etc

Contact: Russ Tate, Emissions Inventory Branch, CARB, tel 916 324 4069

Comment: This is the latest available inventory; the next inventory for 1982 will be available shortly and can be obtained from Mr. Tate when it is released.

3.4 Piball Data

Site, Location, and Period

Coolwater; 34 51 N, 116 50 W (approx); 1979-82.

Piball data

Contact: Andy Huang, Southern California Edison, 818-572 4165

Comment: Data for all months not available.

4.0 EXCLUDED DATA

Sites in the California desert which report data, but were not included in the data base are catalogued below. These sites were excluded from the data base because the data were available only in hardcopy form and it was not cost effective to transcribe them to computer tapes.

<u>Data Source</u>	<u>Location</u>	<u>Parameters</u>	<u>Approx. Dates</u>
SCQMD	Palm Springs	WS,WD	1973-Present
	Indio	WS,WD	1973-Present
	29 Palms	WS,WD	1978-82
National Park Service	Joshua Tree Nat'l Monument	WD,WD,Temp, Precip.,RH	1969-Present
	Death Valley Nat'l Monument	WS,WD, Temp,RH	1981-83
Great Basin APCD	DWP Pump #7 (Independence area)	WS,WD	1982
	DWP Pump #248 (Bishop)	WS,WD	1981-82
	Mono Lake	WS,WD	1982
So. Calif. Gas	Lancaster	WD,Temp.	1973-82
	Beaumont Indio	Precip.,RH	
George AFB	Victorville Area	WS,WD,Temp, Precip, Pressure,DP	1975-Present
San Bernardino County APCD	Trona	WS,WD	1979-Present
	Victorville	WS,WD	1978-Present
	Barstow	WS,WD	1980-Present
	29 Palms	WS,WD	1978-Present

<u>Data Source</u>	<u>Location</u>	<u>Parameters</u>	<u>Approx. Dates</u>
LADWP	5 sites in Owens Valley	Wind Run, WD	Approximately 50 years
California Energy Commission	25 sites throughout desert	WS,WD	1980
State Lands Commission	Owens Lake	WS,WD,Temp, Precip,RH	1981-83
DOT - Caltrans	Oasis Imperial, Elmore	CO	1974-75
So. Calif. Edison	Ivanpah	WS,WD,Temp, Precip, Radiation	
So. Calif. Edison	Needles	SO ₂ ,NO,NO _x ,O ₃ , REWS,REWD,Temp, TSP	1976-81
So. Calif. Edison	Kathenne Landing,AZ	SO ₂ ,NO,NO ₂ ,NO _x ,O ₃ ,TSP	1976-81
So. Calif. Edison	Bullhead City, AZ	SO ₂ ,NO,NO ₂ ,NO _x ,Pres.,TSP	1976-81
So. Calif. Edison	Bullhead City,AP,AZ	WS,WD,REWS,REWD,Temp,RH	1980-81
So. Calif. Edison	Camera Site, AZ	TSP	1976-81
So. Calif. Edison	Cottonwood Cove 1, NV	SO ₂	1976-81
So. Calif. Edison	Cottonwood Cove 2, NV	VISI,SO ₂ ,O ₃ ,WS,WD,REWS,REWD,Temp,DEW,INSO,TSP	1976-81 (approx)
So. Calif. Edison	DRI Mountain, AZ	VISI,SO ₂ ,NO,NO ₂ ,NO _x ,O ₃ ,WS,WD,REWS,REWD,Temp,DEW,TSP	1976-81

<u>Data Source</u>	<u>Location</u>	<u>Parameters</u>	<u>Approx. Dates</u>
So. Calif. Edison	Ft. Mohave, AZ	VISI, SO ₂ , NO, NO ₂ , NO _x , O ₃ , WS, WD, REWS, REWD, Temp, DEW, TSP	1976-81
So. Calif. Edison	Hancock, AZ	SO ₂ , TSP	1977-81
So. Calif. Edison	River Bend, AZ	SO ₂ , NO, NO _x TSP	1976-77
So. Calif. Edison	Spirit Mountain, AZ	O ₃ , WS, WD, REWS, REWD, Temp, DEW, INSO	1979-80
So. Calif. Edison	Tokyo Bay, AZ	SO ₂ , NO, NO ₂ , NO _x , TSP	1976-77
So. Calif. Edison	West Site, NV	SO ₂	1976-81

Appendix A

ALTERNATE SITE INDICES

CATALOGUE CROSS REFERENCE BY SITE CODE

Site Code	Site Name	Page Number
ARB1300680	El Centro - Naval Air Facility	2- 56
ARB1300681	Calexico Fire Station	2- 32
ARB1300682	El Centro	2- 54
ARB1300683	Brawley Fire Station	2- 27
ARB1300684	El Centro	2- 55
ARB1300685	El Centro	2- 53
ARB1300686	Niland	2-102
ARB1300687	Imperial	2- 63
ARB1300688	Heber	2- 60
ARB1300689	Holtville	2- 62
ARB1300690	Westmoreland	2-119
ARB1300691	Brawley Hovely	2- 28
ARB1300692	Calipatria	2- 33
ARB1300693	Brawley	2- 26
ARB1400691	Bishop	2- 18
ARB1400692	Lone Pine - Airport	2- 84
ARB1400693	Lone Pine - Co. Maint. Yard	2- 85
ARB1400694	Lone Pine	2- 83
ARB1400695	Bishop	2- 17
ARB1400696	Coso Jct	2- 45
ARB1400697	Keeler	2- 73
ARB1400698	Lone Pine	2- 82
ARB1400699	Lone Pine	2- 81
ARB1400700	Independence - DWP Pump 77	2- 66
ARB1400701	Independence - DWP Pump 159	2- 64
ARB1400702	Bishop - DWP Pump 248	2- 19
ARB1400703	Independence - DWP Pump 67	2- 65
ARB1500206	Ridgecrest - Fire Department	2-109
ARB1500207	Mojave	2- 97
ARB1500209	Boron Fire Department	2- 25
ARB1500211	China Lake	2- 34
ARB2600771	Bridgeport	2- 29
ARB2600772	Lee Vining	2- 78
ARB2600773	Bridgeport - Co. Maint. Yard	2- 30
ARB2600774	Mammoth - June Lakes Airport	2- 90
ARB2600775	Lee Vining - 6NNW	2- 79
ARB2600776	Mammoth Lakes Fire Station	2- 94
ARB2600777	Mono Lake	2- 98
ARB2600778	Mammoth Lakes	2- 92
ARB2600779	Lee Vining State Maint. Sta.	2- 80
ARB2600780	Mammoth High School	2- 91
ARB2600781	Mammoth Lakes Water District	2- 95

CATALOGUE CROSS REFERENCE BY SITE CODE (Cont.)

Site Code	Site Name	Page Number
ARB2600782	Mono Lake Simis	2- 99
ARB2600783	Mammoth Lakes 4SE	2- 93
ARB3300132	Blythe	2- 21
ARB3300133	Banning	2- 13
ARB3300136	Coachella Valley	2- 44
ARB3300137	Palm Springs - Fire Station	2-104
ARB3300138	Thermal	2-110
ARB3300139	Indio	2- 67
ARB3300143	Palm Springs - Amado	2-103
ARB3300145	Indio	2- 68
ARB3300150	Banning	2- 12
ARB3300153	Palo Verde	2-106
ARB3300157	Indio - Jackson	2- 69
ARB3600155	Barstow	2- 15
ARB3600168	Victorville	2-116
ARB3600169	Needles	2-101
ARB3600187	Needles	2-100
ARB3600188	Trona	2-111
ARB3600190	Victorville - Fair Grounds	2-117
ARB3600191	Twentynine Palms - Adobe	2-115
ARB3600196	Cajon Pass	2- 31
ARB7000082	Lancaster	2- 75
ARB7000593	Lancaster	2- 74
EMS1303001	Heber	2- 61
EMS1404001	China Lake - Coso	2- 35
EMS1404002	China Lake - Coso Drill	2- 36
EMS1404003	Death Valley - Nevares Spring	2- 49
EMS1404004	China Lake - Haiwee	2- 39
EMS1404009	China Lake - Rose Valley	2- 43
EMS1406011	Death Valley - Nevares Spring	2- 51
EMS1413002	Death Valley - Nevares Spring	2- 48
EMS1504005	China Lake - IOB	2- 40
EMS1504006	Mojave	2- 96
EMS1504007	China Lake - Laurel Mountain	2- 41
EMS1512002	Edwards AFB	2- 52
EMS3303002	Blythe	2- 22
EMS3303004	Blythe	2- 20
EMS3306010	Joshua Tree	2- 72
EMS3313001	Blythe	2- 23
EMS3601002	Daggett - Cool Water	2- 46
EMS3601003	Lucerne Valley	2- 88
EMS3601004	Lucerne - Johnson Valley	2- 86

CATALOGUE CROSS REFERENCE BY SITE CODE (Cont.)

Site Code	Site Name	Page Number
EMS3601005	Lucerne - Rodman Mountain	2- 87
EMS3604000	China Lake - Lone Butte, B Mtn	2- 42
EMS3604008	China Lake - G Range - R1	2- 37
EMS3604010	Trona 1	2-112
EMS3604011	Trona 2	2-114
EMS3612001	Iron Mountain	2- 71
EMS3612003	Fort Irwin	2- 58
EMS3613001	Fort Irwin	2- 57
EMS3630001	China Lake - G-Range Trailer	2- 38
EMS9903003	Parker	2-108
EMS9903005	Parker	2-107

CATALOGUE CROSS REFERENCE BY COUNTY

County	Site Name	Site Code	Page Number
Imperial	Brawley	ARB1300693	2- 26
	Brawley Fire Station	ARB1300683	2- 27
	Brawley Hovely	ARB1300691	2- 28
	Calexico Fire Station	ARB1300681	2- 32
	Calipatria	ARB1300692	2- 33
	El Centro	ARB1300682	2- 54
	El Centro	ARB1300684	2- 55
	El Centro	ARB1300685	2- 53
	El Centro - Naval Air Facility	ARB1300680	2- 56
	Heber	ARB1300688	2- 60
	Heber	EMS1303001	2- 61
	Holtville	ARB1300689	2- 62
	Imperial	ARB1300687	2- 63
	Niland	ARB1300686	2-102
	Westmoreland	ARB1300690	2-119
Inyo	Bishop	ARB1400691	2- 18
	Bishop	ARB1400695	2- 17
	Bishop - DWP Pump 248	ARB1400702	2- 19
	China Lake - Coso	EMS1404001	2- 35
	China Lake - Coso Drill	EMS1404002	2- 36
	China Lake - Haiwee	EMS1404004	2- 39
	China Lake - Rose Valley	EMS1404009	2- 43
	Coso Jct	ARB1400696	2- 45
	Death Valley - Nevares Spring	EMS1404003	2- 49
	Death Valley - Nevares Spring	EMS1406011	2- 51
	Death Valley - Nevares Spring	EMS1413002	2- 48
	Independence - DWP Pump 159	ARB1400701	2- 64
	Independence - DWP Pump 67	ARB1400703	2- 65
	Independence - DWP Pump 77	ARB1400700	2- 66
	Keeler	ARB1400697	2- 73
	Lone Pine	ARB1400694	2- 83
	Lone Pine	ARB1400698	2- 82
	Lone Pine	ARB1400699	2- 81
	Lone Pine - Airport	ARB1400692	2- 84
	Lone Pine - Co. Maint. Yard	ARB1400693	2- 85
Kern	Boron Fire Department	ARB1500209	2- 25
	China Lake	ARB1500211	2- 34
	China Lake - IOB	EMS1504005	2- 40
	China Lake - Laurel Mountain	EMS1504007	2- 41
	Edwards AFB	EMS1512002	2- 52
	Mojave	ARB1500207	2- 97
	Mojave	EMS1504006	2- 96

CATALOGUE CROSS REFERENCE BY COUNTY (Cont.)

County	Site Name	Site Code	Page Number
Kern	Ridgecrest - Fire Department	ARB1500206	2-109
Los Angeles	Lancaster	ARB7000082	2- 75
	Lancaster	ARB7000593	2- 74
Mono	Bridgeport	ARB2600771	2- 29
	Bridgeport - Co. Maint. Yard	ARB2600773	2- 30
	Lee Vining	ARB2600772	2- 78
	Lee Vining - 6NNW	ARB2600775	2- 79
	Lee Vining State Maint. Sta.	ARB2600779	2- 80
	Mammoth - June Lakes Airport	ARB2600774	2- 90
	Mammoth High School	ARB2600780	2- 91
	Mammoth Lakes	ARB2600778	2- 92
	Mammoth Lakes 4SE	ARB2600783	2- 93
	Mammoth Lakes Fire Station	ARB2600776	2- 94
	Mammoth Lakes Water District	ARB2600781	2- 95
	Mono Lake	ARB2600777	2- 98
	Mono Lake Simis	ARB2600782	2- 99
Riverside	Banning	ARB3300133	2- 13
	Banning	ARB3300150	2- 12
	Blythe	ARB3300132	2- 21
	Blythe	EMS3303002	2- 22
	Blythe	EMS3303004	2- 20
	Blythe	EMS3313001	2- 23
	Coachella Valley	ARB3300136	2- 44
	Indio	ARB3300139	2- 67
	Indio	ARB3300145	2- 68
	Indio - Jackson	ARB3300157	2- 69
	Joshua Tree	EMS3306010	2- 72
	Palm Springs - Amado	ARB3300143	2-103
	Palm Springs - Fire Station	ARB3300137	2-104
	Palo Verde	ARB3300153	2-106
	Thermal	ARB3300138	2-110
San Bernardino	Barstow	ARB3600155	2- 15
	Cajon Pass	ARB3600196	2- 31
	China Lake - G Range - R1	EMS3604008	2- 37
	China Lake - G-Range Trailer	EMS3630001	2- 38
	China Lake - Lone Butte, B Mtn	EMS3604000	2- 42
	Daggett - Cool Water	EMS3601002	2- 46
	Fort Irwin	EMS3612003	2- 58
	Fort Irwin	EMS3613001	2- 57
	Iron Mountain	EMS3612001	2- 71
	Lucerne - Johnson Valley	EMS3601004	2- 86
	Lucerne - Rodman Mountain	EMS3601005	2- 87

CATALOGUE CROSS REFERENCE BY COUNTY (Cont.)

County	Site Name	Site Code	Page Number
San Bernardino	Lucerne Valley	EMS3601003	2- 88
	Needles	ARB3600169	2-101
	Needles	ARB3600187	2-100
	Trona	ARB3600188	2-111
	Trona 1	EMS3604010	2-112
	Trona 2	EMS3604011	2-114
	Twentynine Palms - Adobe	ARB3600191	2-115
	Victorville	ARB3600168	2-116
	Victorville - Fair Grounds	ARB3600190	2-117
Outside California	Parker	EMS9903003	2-108
	Parker	EMS9903005	2-107

CATALOGUE CROSS REFERENCE BY AGENCY

Agency	Site Name	Site Code	Page Number
California Air Resources Board	Banning	ARB3300133	2- 13
	Banning	ARB3300150	2- 12
	Barstow	ARB3600155	2- 15
	Bishop	ARB1400691	2- 18
	Bishop	ARB1400695	2- 17
	Bishop - DWP Pump 248	ARB1400702	2- 19
	Blythe	ARB3300132	2- 21
	Boron Fire Department	ARB1500209	2- 25
	Brawley	ARB1300693	2- 26
	Brawley Fire Station	ARB1300683	2- 27
	Brawley Hovely	ARB1300691	2- 28
	Bridgeport	ARB2600771	2- 29
	Bridgeport - Co. Maint. Yard	ARB2600773	2- 30
	Cajon Pass	ARB3600196	2- 31
	Calexico Fire Station	ARB1300681	2- 32
	Calipatria	ARB1300692	2- 33
	China Lake	ARB1500211	2- 34
	Coachella Valley	ARB3300136	2- 44
	Coso Jct	ARB1400696	2- 45
	El Centro	ARB1300682	2- 54
	El Centro	ARB1300684	2- 55
	El Centro	ARB1300685	2- 53
	El Centro - Naval Air Facility	ARB1300680	2- 56
	Heber	ARB1300688	2- 60
	Holtville	ARB1300689	2- 62
	Imperial	ARB1300687	2- 63
	Independence - DWP Pump 159	ARB1400701	2- 64
	Independence - DWP Pump 67	ARB1400703	2- 65
	Independence - DWP Pump 77	ARB1400700	2- 66
	Indio	ARB3300139	2- 67
	Indio	ARB3300145	2- 68
	Indio - Jackson	ARB3300157	2- 69
	Keeler	ARB1400697	2- 73
	Lancaster	ARB7000082	2- 75
	Lancaster	ARB7000593	2- 74
	Lee Vining	ARB2600772	2- 78
	Lee Vining - 6NNW	ARB2600775	2- 79
	Lee Vining State Maint. Sta.	ARB2600779	2- 80
	Lone Pine	ARB1400694	2- 83
	Lone Pine	ARB1400698	2- 82
	Lone Pine	ARB1400699	2- 81
	Lone Pine - Airport	ARB1400692	2- 84

CATALOGUE CROSS REFERENCE BY AGENCY (Cont.)

Agency	Site Name	Site Code	Page Number
California Air Resources Board	Lone Pine - Co. Maint. Yard	ARB1400693	2- 85
	Mammoth - June Lakes Airport	ARB2600774	2- 90
	Mammoth High School	ARB2600780	2- 91
	Mammoth Lakes	ARB2600778	2- 92
	Mammoth Lakes 4SE	ARB2600783	2- 93
	Mammoth Lakes Fire Station	ARB2600776	2- 94
	Mammoth Lakes Water District	ARB2600781	2- 95
	Mojave	ARB1500207	2- 97
	Mono Lake	ARB2600777	2- 98
	Mono Lake Simis	ARB2600782	2- 99
	Needles	ARB3600169	2-101
	Needles	ARB3600187	2-100
	Niland	ARB1300686	2-102
	Palm Springs - Amado	ARB3300143	2-103
	Palm Springs - Fire Station	ARB3300137	2-104
	Palo Verde	ARB3300153	2-106
	Ridgecrest - Fire Department	ARB1500206	2-109
	Thermal	ARB3300138	2-110
	Trona	ARB3600188	2-111
	Twentynine Palms - Adobe	ARB3600191	2-115
	Victorville	ARB3600168	2-116
	Victorville - Fair Grounds	ARB3600190	2-117
	Westmoreland	ARB1300690	2-119
EPA Las Vegas	Edwards AFB	EMS1512002	2- 52
	Fort Irwin	EMS3612003	2- 58
	Iron Mountain	EMS3612001	2- 71
National Park Service	Death Valley - Nevares Spring	EMS1406011	2- 51
	Joshua Tree	EMS3306010	2- 72
NWC, China Lake	China Lake - Coso	EMS1404001	2- 35
	China Lake - Coso Drill	EMS1404002	2- 36
	China Lake - G Range - R1	EMS3604008	2- 37
	China Lake - Haiwee	EMS1404004	2- 39
	China Lake - IOB	EMS1504005	2- 40
	China Lake - Laurel Mountain	EMS1504007	2- 41
	China Lake - Lone Butte, B Mtn	EMS3604000	2- 42
	China Lake - Rose Valley	EMS1404009	2- 43
	Death Valley - Nevares Spring	EMS1404003	2- 49
	Mojave	EMS1504006	2- 96
	Trona 1	EMS3604010	2-112
	Trona 2	EMS3604011	2-114
San Diego Gas and Electric	Blythe	EMS3303002	2- 22
	Blythe	EMS3303004	2- 20

CATALOGUE CROSS REFERENCE BY AGENCY (Cont.)

Agency	Site Name	Site Code	Page Number
San Diego Gas and Electric	Heber	EMS1303001	2- 61
	Parker	EMS9903003	2-108
	Parker	EMS9903005	2-107
Southern California Edison	Daggett - Cool Water	EMS3601002	2- 46
	Lucerne - Johnson Valley	EMS3601004	2- 86
	Lucerne - Rodman Mountain	EMS3601005	2- 87
	Lucerne Valley	EMS3601003	2- 88
	Blythe	EMS3313001	2- 23
U.S. Army	Death Valley - Nevares Spring	EMS1413002	2- 48
	Fort Irwin	EMS3613001	2- 57
Miscellaneous sites	China Lake - G-Range Trailer	EMS3630001	2- 38

Appendix B

CATALOGUE GENERATING SOFTWARE

B.1 CATALOGUE GENERATION

The codes required to generate and revise the catalogue are given in this appendix. A summary of the codes is given in Section B.2, and all codes are internally documented.

To generate (or revise) the catalogue, an input data file is required. A sample format for this input file is shown in the last page of this appendix (p. B-52). Data fields in the data file are identified by 6 character identifiers. For example, SITECD is the identifier for site code, SITENAM is for site name, etc. Those not obvious are annotated. Of these, SITECD, SITENAM, and ANALYT are required. Missing fields may be left blank or omitted.

Several types of catalogues can be generated using the codes described next. All of these use the same data input and typically involve the same first step, i.e. processing by PRTCAT.

B.2 SUMMARY OF SOFTWARE

1. PRTCAT (p. B-4)
This program compiles a complete catalogue from an input data file. An example of the data file is given on p. B-52. The program is documented internally.
2. DMPCAT (p. B-15)
This program generates a print file of the catalogue compiled by PRTCAT. The catalogue is also sorted alphabetically.
3. EXREF1 (p. B-18)
This program generates an abbreviated index of site number, site name, and page sorted by site number. Once again, the catalogue compiled by PRTCAT is used.
4. EXREF2 (p. B-22)
This program generates an index of site number, county, site name and page number sorted by county.
5. EXREF3 (p. B-26)
This program generates an index of agency, site name, site number and page number ordered by agency.
6. UTMILL (p. B-30)
This is a subroutine for generating UTM from latitude and longitudes and vice versa. It is used in PRTCAT. This is a USAS software modified for the PDP-11 computer.

7. MSORT (p. B-38)
This subroutine is used for sorting arrays. It is used in the catalogue generating software.
8. LOOKUP (p. B-41)
This is a subroutine to determine the position of an element in an array. This is a library routine available in Macro language on the PDP-11 computer, and is internally documented. Its function can be duplicated for other languages if the catalogue software is used on other computers.
9. ASK (p. B-44)
This is also a library routine on PDP-11 in macro. It is used when terminal Yes/No response is required; a (1) is returned for all responses except Y; 1 for a Y.
10. KOM (p. B-48)
This is also a macro library routine. It is used for comparing two byte strings.


```

0001      PROGRAM PRTCAT
          C
          C      PRINT CDAWG CATALOG
          C
          C      VERSION: 1A
          C          BY: J. SILVERSTEIN
          C          DATE: 15-FEB-84
          C
          C      VERSION: 2A
          C          BY: J. SILVERSTEIN
          C          DATE: 24-APR-84
          C
          C      REVISED CATALOG FORMAT SLIGHTLY PER VIJAY
          C
          C      VERSION: 3A
          C          BY: J. SILVERSTEIN
          C          DATE: 29-MAY-84
          C
          C      VERSION: 4A
          C          BY: T. WILKINSON
          C          DATE: 06-AUG-84
          C
          C      CORRECTED ERROR IN COMPUTATION OF EASTING
          C
          C      VERSION: 5A
          C          BY: J. SILVERSTEIN
          C          DATE: 22-AUG-84
          C
          C      ADDED TOWNSHIP, RANGE AND SECTION
          C      SAVE OUTPUT IN RANDOM ACCES FILE CDAWG.RAC
          C

```

0002	PARAMETER NCODE=40	! # OF VALID CODES
0003	PARAMETER NCOL=98	! # OF COLUMNS / PAGE
0004	PARAMETER NLIN=58	! # OF LINES / PAGE
0005	BYTE BPAGE(NCOL,NLIN)	! DUMMY BLANK PAGE
0006	BYTE CPAGE(NCOL,NLIN)	! BLANK CATALOG PAGE
0007	BYTE CS(9)	! "(Cont.)" STRING
0008	BYTE ESC	! "ESCAPE"
0009	BYTE REC(NCOL)	! TEMP CHAR BUFFER
0010	DOUBLE PRECISION EAST	! UTM EASTING
0011	DOUBLE PRECISION NORTH	! UTM NORTHING
0012	DOUBLE PRECISION SECLAT	! SECONDS OF LATITUDE
0013	DOUBLE PRECISION SECLON	! SECONDS OF LONGITUDE
0014	DOUBLE PRECISION VER	! CURRENT PROGRAM VERSION
0015	DOUBLE PRECISION RELD	! RELEASE DATE OF CURRENT VERS
0016	DOUBLE PRECISION THET	! CONVERGENCE ANGLE FOR UTM TLL
0017	INTEGER CODE	! CODE #
0018	INTEGER COL(NCODE)	! STARTING COLUMN
0019	INTEGER CONFLG	! CONTINUATION PAGE FLAG
0020	INTEGER CFLG(NCODE)	! FLAG FOR CODED PARAMETERS
0021	INTEGER ESTFLG	! FLAG FOR CONVERTING UTM
0022	INTEGER NCR(NCODE)	! MAX # OF CHARS / PARAMETER
0023	INTEGER NREC	! CURRENT RECORD #
0024	INTEGER ROW(NCODE)	! ROW
0025	INTEGER*4 I4TEMP	! TEMP I*4

```

C
C   DEFINE ESCAPE CHARACTER
C
0026   DATA ESC / "33 /
C
C   DEFINE CURRENT PROGRAM VERSION AND RELEASE DATE
C
0027   DATA VER,RELD / '5A','NOT RELD' /
C
C   DEFINE STARTING COLUMN FOR EACH CODE
C
0028   DATA COL /
      1 25,      ! SITNAM
      2 25,      ! SITECD
      3 23,      ! SITAD1
      4 23,      ! SITAD2
      5 23,      ! SITAD3
      6 23,      ! SITAD4
      7 23,      ! LATITD
      8 23,      ! LONITD
      9 86,      ! OPPROC
      1 86,      ! REPRES
      1 23,      ! CONTCT
      2 23,      ! AGENCY
      3 23,      ! ADDRS1
      4 23,      ! ADDRS2
      5 23,      ! ADDRS3
      6 23,      ! ADDRS4
      7 23,      ! PHONE#
      8 12,      ! ANALYT
      9 20,      ! STDATE
      2 31,      ! ENDATE
      1 47,      ! COMPLT
      2 57,      ! SMPFRQ
      3 72,      ! METHCD
      4 81,      ! COMPCD
      5 88,      ! DATQUA
      6 19,      ! COMNT1
      7 19,      ! COMNT2
      8 19,      ! COMNT3
      9 19,      ! COMNT4
      3 19,      ! COMNT5
      1 19,      ! COMNT6
      2 82,      ! PURNET
      3 82,      ! #SITES
      4 23,      ! SITCON
      5 23,      ! SITEPH
      6 23,      ! UTMNOR
      7 23,      ! UTMEAS
      8 23,      ! TOWNSH
      9 39,      ! RANGE#
      1 57 /     ! SECTIO
C
C   DEFINE ROW FOR EACH PARAMETER
C

```



```
0029      DATA ROW /
          1 1,      ! SITNAM
          2 2,      ! SITECD
          3 5,      ! SITAD1
          4 6,      ! SITAD2
          5 7,      ! SITAD3
          6 8,      ! SITAD4
          7 10,     ! LATITD
          8 12,     ! LONITD
          9 1,      ! OPPROC
          1 2,      ! REPRES
          1 14,     ! CONTCT
          2 15,     ! AGENCY
          3 16,     ! ADDRS1
          4 17,     ! ADDRS2
          5 18,     ! ADDRS3
          6 19,     ! ADDRS4
          7 20,     ! PHONE#
          8 25,     ! ANALYT
          9 25,     ! STDATE
          2 25,     ! ENDATE
          1 25,     ! COMPLT
          2 25,     ! SMPFRQ
          3 25,     ! METHCD
          4 25,     ! COMPCD
          5 25,     ! DATQUA
          6 53,     ! COMNT1
          7 54,     ! COMNT2
          8 55,     ! COMNT3
          9 56,     ! COMNT4
          3 57,     ! COMNT5
          1 58,     ! COMNT6
          2 14,     ! PURNET
          3 16,     ! #SITES
          4 3,      ! SITCON
          5 4,      ! SITEPH
          6 11,     ! UTMNOR
          7 13,     ! UTMEAS
          8 9,      ! TOWNSH
          9 9,      ! RANGE#
          1 9 /     ! SECTIO
```

C
C
C

DEFINE MAXIMUM # OF CHARACTERS FOR EACH PARAMETER

```
0030      DATA NCR /
          1 30,     ! SITNAM
          2 10,     ! SITECD
          3 30,     ! SITAD1
          4 30,     ! SITAD2
          5 30,     ! SITAD3
          6 30,     ! SITAD4
          7 15,     ! LATITD
          8 15,     ! LONITD
          9 9,      ! OPPROC
          1 6,      ! REPRES
```

```

1 30,      ! CONTACT
2 30,      ! AGENCY
3 30,      ! ADDRS1
4 30,      ! ADDRS2
5 30,      ! ADDRS3
6 30,      ! ADDRS4
7 15,      ! PHONE#
8 4,       ! ANALYT
9 9,       ! STDATE
2 9,       ! ENDATE
1 3,       ! COMPLT
2 10,      ! SMPFRQ
3 2,       ! METHCD
4 2,       ! COMPCD
5 7,       ! DATQUA
6 80,      ! COMNT1
7 80,      ! COMNT2
8 80,      ! COMNT3
9 80,      ! COMNT4
3 80,      ! COMNT5
1 80,      ! COMNT6
2 5,       ! PURNET
3 3,       ! #SITES
4 30,      ! SITCON
5 15,      ! SITEPH
6 7,       ! UTMNOR
7 6,       ! UTMEAS
8 6,       ! TOWNSH
9 6,       ! RANGE#
1 6 /      ! SECTIO

```

C
C
C

DEFINE PARAMETERS WHICH ARE CODED

0031

DATA CFLG /

```

1 0,      ! SITNAM
2 0,      ! SITECD
3 0,      ! SITAD1
4 0,      ! SITAD2
5 0,      ! SITAD3
6 0,      ! SITAD4
7 0,      ! LATITD
8 0,      ! LONITD
9 1,      ! OPPROC
1 0,      ! REPRES
1 0,      ! CONTACT
2 0,      ! AGENCY
3 0,      ! ADDRS1
4 0,      ! ADDRS2
5 0,      ! ADDRS3
6 0,      ! ADDRS4
7 0,      ! PHONE#
8 0,      ! ANALYT
9 0,      ! SITDAT
2 0,      ! ENDATE
1 0,      ! COMPLT

```



```

2 2,          ! SMPFRQ
3 0,          ! METHCD
4 0,          ! COMPCD
5 0,          ! DATQUA
6 0,          ! COMNT1
7 0,          ! COMNT2
8 0,          ! COMNT3
9 0,          ! COMNT4
3 0,          ! COMNT5
1 0,          ! COMNT6
2 0,          ! PURNET
3 0,          ! #SITES
4 0,          ! SITCON
5 0,          ! SITEPH
6 0,          ! UTMNOR
7 0,          ! UTMEAS
8 0,          ! TOWNSH
9 0,          ! RANGE#
1 0 /         ! SECTIO

C
C  DEFINE "(Cont.)" STRING
C
0032 DATA CS / 27,'&','(','C','o','n','t','.',')' /
C
C  SAY HELLO
C
0033 WRITE(5,10000) VER,RELD
0034 10000 FORMAT(' CDAWG CATALOG PRINTER'/' Version: ',A8,5X,
1      'Released: ',A8)
C
C  OPEN CATALOG INPUT DATA FILE
C
0035 OPEN (UNIT=1,NAME='CAT.VO5',STATUS='OLD',READONLY)
C
C  OPEN PAGE FORMAT DATA FILE
C
0036 OPEN (UNIT=2,NAME='CAT.HED',STATUS='OLD',READONLY)
C
C  READ THE PAGE FORMAT
C
0037 NLINE = 0
0038 10 READ(2,10010,END=20) REC
0039 10010 FORMAT(<NCOL>A1)
0040 NLINE = NLINE + 1
0041 IF(NLINE .GT. NLIN) STOP 'CAT.HED>NLIN'
0042 CALL MOVS(REC,CPAGE(1,NLINE),NCOL)
0043 GO TO 10
C
C  OPEN CATALOG OUTPUT FILE
C
0044 20 CLOSE (UNIT=2)
0045 OPEN (UNIT=2,NAME='CDAWG.RAC;1',STATUS='NEW',ACCESS='DIRECT',
1      RECL=1421)
C
C  INIT THE RECORD COUNTER

```

```

C
0046      NREC = 0
C
C      SAVE THE BLANK PAGE
C
0047      CALL MOV5(CPAGE,BPAGE,NCOL*NLIN)
C
C      RESET PARAMETER COUNTER
C
0048      NPARAM = 0
C
C      RESET LATITUDE FOUND FLAG
C
0049      LATFLG = 0
C
C      RESET EASTING FOUND FLAG
C
0050      ESTFLG = 0
C
C      RESET CONTINUATION PAGE FLAG
C
0051      CONFLG = 0
C
C      READ RAW CATALOG DATA
C
0052      30      READ(1,10030,END=200) NC,REC
0053      10030  FORMAT(Q,<NCOL>A1)
C
C      IF FIRST CHAR = "*" - END OF PAGE
C
0054      IF(REC(1) .EQ. '*') THEN
C
C      PRINT THIS PAGE
C
C
0055      NREC = NREC + 1
0056      WRITE(2'NREC+1) ((CPAGE(I,J), I = 1,NCOL), J = 1,NLIN)
C
C      BLANK THE PAGE
C
0057      CALL MOV5(BPAGE,CPAGE,NCOL*NLIN)
C
C      RESET CONTINUATION PAGE FLAG
C
0058      CONFLG = 0
C
C      AND RESET PARAMETER COUNTER AND LINE POINTER
C
0059      NPARAM = 0
0060      DO 50 NP = 18,25
0061      50      ROW(NP) = 25
0062      GO TO 30
0063      ENDIF
0064      IF(NC .GT. 80) THEN
0065      WRITE(5,10050) REC
0066      10050  FORMAT(' *** RECORD OVERFLOW *** - ',<NCOL>A1)

```



```

0067      GO TO 30
0068      ENDIF
      C
      C      VALID CODE?
      C
0069      NCD = CODE(REC)
0070      IF(NCD .EQ. 0) THEN
0071      WRITE(5,10060) (REC(I), I = 1,6)
0072      10060 FORMAT(' *** INVALID CODE = "',6A1,'" ***')
0073      GO TO 30
0074      ENDIF
0075      IF(NCD .EQ. 7) THEN
      C
      C      LATITUDE
      C
0076      DECODE(12,10061,REC(8)) IDLAT,IMLAT,ISCLAT
0077      10061 FORMAT(I2,5X,I2,1X,I2)
0078      LATFLG = 1
0079      ENDIF
0080      IF(NCD .EQ. 36) THEN
      C
      C      NORTHING
      C
0081      DECODE(7,10062,REC(8)) I4TEMP
0082      10062 FORMAT(I7)
0083      NORTH = DFLOTJ(I4TEMP)
0084      ESTFLG = 1
0085      ENDIF
0086      IF(NCD .EQ. 8) THEN
      C
      C      LONGITUDE
      C
0087      DECODE(13,10063,REC(8)) IDLON,IMLON,ISCLON
0088      10063 FORMAT(I3,5X,I2,1X,I2)
0089      IF(LATFLG .EQ. 1) THEN
      C
      C      CONVERT TO UTM
      C
0090      FLAG1 = -1.
0091      FLAG2 = -1.
0092      IZONE = 0
0093      THET = 0.DO
0094      SECLAT = DBLE(ISCLAT)
0095      SECLON = DBLE(ISCLON)
0096      NORTH = 0.DO
0097      EAST = 0.DO
0098      CALL UTMTELL(FLAG1,IDLAT,IMLAT,SECLAT,FLAG2,IDLON,IMLON,SECLON,
1      NORTH,EAST,IZONE,THET)
0099      ENCODE(7,10062,CPAGE(23,11)) JIDNNT(NORTH)
0100      ENCODE(6,10064,CPAGE(23,13)) JIDNNT(EAST)
0101      10064 FORMAT(I6)
0102      LATFLG = 0
0103      ENDIF
0104      ENDIF
0105      IF(NCD .EQ. 37) THEN

```

```

C
C      EASTING
C
0106      DECODE(6,10064,REC(8)) I4TEMP
0107      EAST = DFLOTJ(I4TEMP)
0108      IF(ESTFLG .EQ. 1) THEN
C
C      CONVERT FROM UTM TO LATITUDE / LONGITUDE
C
0109      FLAG1 = 0.
0110      FLAG2 = 0.
0111      THET = 0.DO
0112      IZONE = 11
0113      CALL UTMILL(FLAG1,IDLAT,IMLAT,SECLAT,FLAG2,IDLON,IMLON,SECLON,
1      NORTH,EAST,IZONE,THET)
0114      ENCODE(13,10065,CPAGE(23,10)) IDLAT,ESC,ESC,IMLAT,IIDINT(SECLAT)
0115      10065 FORMAT(I2.2,A1,'Do',A1,'U',I2.2,1H',I2.2,'")
0116      ENCODE(14,10066,CPAGE(23,12)) IDLON,ESC,ESC,IMLON,IIDINT(SECLON)
0117      10066 FORMAT(I3.3,A1,'Do',A1,'U',I2.2,1H',I2.2,'")
0118      ENDIF
0119      ENDIF
C
C      "ANALYT"
C
0120      IF(NCD .EQ. 18) THEN
C
C      MOVE THE LINE POINTER
C
0121      NPARAM = NPARAM + 1
0122      IF(NPARAM .GT. 13) THEN
C
C      PRINT THIS PAGE AND START A NEW ONE
C
0123      NREC = NREC + 1
0124      WRITE(2'NREC+1) ((CPAGE(I,J), I = 1,NCOL), J = 1,NLIN)
C
C      BLANK THE PARAMETER LINES IN THE PAGE
C
0125      DO 65 NL = 25,49,2
0126      65 CALL MOV(S(BPAGE(1,NL),CPAGE(1,NL),NCOL)
0127      NPARAM = 1
0128      IF(CONFLG .EQ. 0) THEN
C
C      ADD "(Cont.)" AFTER SITE NAME
C
0129      DO 66 N = COL(1)+NCR(1)-1,COL(1),-1
0130      NSC = N + 2
0131      IF(CPAGE(N,ROW(1)) .NE. ' ') GO TO 67
0132      66 CONTINUE
0133      NSC = COL(1)+NCR(1)+1
0134      67 CALL MOV(S(CS,CPAGE(NSC,ROW(1)),9)
0135      CONFLG = 1
0136      ENDIF
0137      ENDIF
0138      DO 70 NP = 18,25

```



```

0139      70      ROW(NP) = (NPARAM-1)*2 + 25
0140      ENDIF
          C
          C      SEE IF THIS IS A CODED VARIABLE
          C
0141      IF(CFLG(NCD) .EQ. 0) THEN
0142      80      CALL MOVS(REC(8),CPAGE(COL(NCD),ROW(NCD)),NCR(NCD))
0143      GO TO 30
0144      ELSE
          C
          C      PROCESS CODED VARIABLE
          C
0145      GOTO (100,120), CFLG(NCD)
          C
          C      OPERATING PROCEDURES
          C
0146      100      IF(REC(8) .EQ. '1') THEN
0147      CALL MOVS('ARB SOP',CPAGE(COL(NCD),ROW(NCD)),7)
0148      GO TO 30
0149      ENDIF
0150      IF(REC(8) .EQ. '2') THEN
0151      CALL MOVS('OTHER SOP',CPAGE(COL(NCD),ROW(NCD)),9)
0152      GO TO 30
0153      ENDIF
0154      IF(REC(8) .EQ. '3') THEN
0155      CALL MOVS('NO SOP',CPAGE(COL(NCD),ROW(NCD)),6)
0156      GO TO 30
0157      ENDIF
0158      IF(REC(8) .EQ. '4') THEN
0159      CALL MOVS('EPA SOP',CPAGE(COL(NCD),ROW(NCD)),7)
0160      GO TO 30
0161      ENDIF
0162      101      WRITE(5,10101) (REC(I), I = 1,NC)
0163      10101      FORMAT(' *** INVALID CODE FOR ',<NC>A1,' ***')
0164      GO TO 30
          C
          C      FREQUENCY
          C
0165      120      IF(REC(8) .EQ. 'A') THEN
0166      CALL MOVS(' HOURLY',CPAGE(COL(NCD),ROW(NCD)),8)
0167      GO TO 30
0168      ENDIF
0169      IF(REC(8) .EQ. 'B') THEN
0170      CALL MOVS(' DAILY',CPAGE(COL(NCD),ROW(NCD)),8)
0171      GO TO 30
0172      ENDIF
0173      IF(REC(8) .EQ. 'C') THEN
0174      CALL MOVS('CONTINUOUS',CPAGE(COL(NCD),ROW(NCD)),10)
0175      GO TO 30
0176      ENDIF
0177      IF(REC(8) .EQ. 'D') THEN
0178      CALL MOVS(' OTHER',CPAGE(COL(NCD),ROW(NCD)),8)
0179      GO TO 30
0180      ENDIF
0181      IF(REC(8) .EQ. 'E') THEN

```

```

0182      CALL MOV5(' 6TH DAY',CPAGE(COL(NCD),ROW(NCD)),8)
0183      GO TO 30
0184      ENDIF
0185      ENDIF
0186      STOP 'PROGRAM BUG!'

      C
      C      END OF PROGRAM - STORE # OF RECORDS AS FIRST RECORD IN CDAWG.RAC
      C
0187      200  WRITE(2'1) NREC
0188      STOP 'EOF'
0189      END

```

PROGRAM SECTIONS

Name	Size	Attributes
\$CODE1	006114 1574	RW,I,CON,LCL
\$PDATA	001066 283	RW,D,CON,LCL
\$IDATA	000250 84	RW,D,CON,LCL
\$VARS 027202	5953	RW,D,CON,LCL
\$TEMPS	000002 1	RW,D,CON,LCL

Total Space Allocated = 036656 7895


```

0001      INTEGER FUNCTION CODE(REC)
0002      PARAMETER NCODE=40                      ! # OF CODES DEFINED
0003      BYTE REC(6),TREC(6)
0004      DOUBLE PRECISION PCODE(NCODE)          ! PARAMETER CODES

      C
      C      DEFINE VALID CODES
      C

0005      DATA PCODE /
1      'SITNAM','SITECD','SITAD1','SITAD2','SITAD3','SITAD4',
2      'LATITD','LONITD','OPPROC','REPRES','CONTCT','AGENCY',
3      'ADDRS1','ADDRS2','ADDRS3','ADDRS4','PHONE#','ANALYT',
4      'STDATE','ENDATE','COMPLT','SMPFRQ','METHCD','COMPCD',
5      'DATQUA','COMNT1','COMNT2','COMNT3','COMNT4','COMNT5',
6      'COMNT6','PURNET','#SITES','SITCON','SITEPH','UTMNOR',
7      'UTMEAS','TOWNSH','RANGE#','SECTIO' /

      C
      C      FIRST MAKE SURE FIRST 6 CHARS ARE UPPER CASE
      C

0006      DO 10 I = 1,6
0007      TREC(I) = REC(I)
0008      IF((TREC(I) .GE. "141) .AND. (TREC(I) .LE. "172))
1      TREC(I) = TREC(I) .AND. "137
0009      10  CONTINUE
0010      CODE = LOOKUP(TREC,PCODE,6,8,NCODE)
0011      RETURN
0012      END

```

PROGRAM SECTIONS

Name	Size	Attributes
\$CODE1	000272 93	RW,I,CON,LCL
\$PDATA	000030 12	RW,D,CON,LCL
\$IDATA	000034 14	RW,D,CON,LCL
\$VARS 000510	164	RW,D,CON,LCL

Total Space Allocated = 001066 283

No FPP Instructions Generated

```

0001      PROGRAM DMPCAT
          C
          C      PROGRAM TO READ RANDOM ACCESS FILE WITH CDAWG CATALOG
          C      AND DUMP IT INTO A PRINT FILE.
          C
          C      CATALOG IS SORTED ALPHABETICALLY BY SITE NAME
          C
          C      VERSION: 1A
          C      BY: J. SILVERSTEIN
          C      DATE: 10-OCT-84
          C

0002      PARAMETER MAXPAG=123                ! # OF PAGES
0003      PARAMETER NCOL=98                   ! # OF COLUMNS / PAGE
0004      PARAMETER NLIN=58                   ! # OF LINES / PAGE
0005      BYTE CPAGE(NCOL,NLIN)               ! CATALOG PAGE
0006      BYTE LSTSIT(30)                    ! NAME OF LAST SITE
0007      BYTE SEQNUM                         ! SEQUENCE # USED TO SORT
0008      BYTE SVEC(30,MAXPAG)                ! SORT VECTOR
0009      BYTE T(30)                          ! TEMP STORAGE FOR SORT
0010      BYTE TT(30)                        !
0011      INTEGER IX(MAXPAG)                  ! SORT INDEX ARRAY
          C
          C      INIT THE LAST SITE TO BLANKS
          C
0012      DATA LSTSIT / 30 * ' ' /
          C
          C      BLANK THE SORT VECTOR
          C
0013      DO 10 I = 1,30
0014      DO 10 J = 1,MAXPAG
0015      10  SVEC(I,J) = ' '
          C
          C      ASK USER FOR BEGINNING SECTION AND PAGE #
          C
0016      20  WRITE(5,10020)
0017      10020 FORMAT('$INPUT BEGINNING SECTION AND PAGE # (S,P) : ')
0018      READ(5,10030,ERR=20) NSEC,NPAG
0019      10030 FORMAT(2I5)
0020      WRITE(5,10040) NSEC,NPAG
0021      10040 FORMAT(' CATALOG WILL BEGIN WITH PAGE ',I3,'-',I3)
0022      CALL ASK(IFOKE,'O.K.')
0023      IF(IFOKE .NE. 1) GO TO 20
          C
          C      OPEN CATALOG DATA FILE
          C
0024      OPEN (UNIT=1,NAME='CDAWG.RAC;1',STATUS='OLD',READONLY,
1      ACCESS='DIRECT')
0025      NPAGE = 0
          C
          C      READ A CATALOG PAGE
          C
0026      100 READ(1,NPAGE+2,ERR=110) ((CPAGE(I,J), I = 1,NCOL), J = 1,NLIN)
          C
          C      COUNT IT
          C

```



```

0027      NPAGE = NPAGE + 1
0028      IF(NPAGE .GT. MAXPAG) STOP 'TOO MANY PAGES!'
      C
      C      LOOK FOR A '(Cont.)' IN THE FIRST LINE
      C
0029      NCS = LOOKUP('(',CPAGE(25,1),1,1,40)
0030      IF(NCS .EQ. 0) THEN
      C
      C      NOT FOUND - ADD THIS SITE TO SORT VECTOR
      C
0031      CALL MOVS(CPAGE(25,1),SVEC(1,NPAGE),30)
0032      SEQNUM = '0'
0033      ELSE
      C
      C      ADD SEQUENCE # TO SITE NAME
      C
0034      SEQNUM = SEQNUM + 1
0035      CALL MOVS(CPAGE(25,1),SVEC(1,NPAGE),NCS-3)
0036      SVEC(NCS-2,NPAGE)=SEQNUM
0037      ENDIF
0038      WRITE(5,20000) NPAGE,(SVEC(I,NPAGE), I = 1,30)
0039      20000 FORMAT(1X,I3.3,5X,30A1)
0040      GO TO 100
      C
      C      NOW WE WILL SORT BY SITE NAME
      C
0041      110 DO 120 I = 1,MAXPAG
0042      120 IX(I) = I+1
0043      TYPE *, '*** BEGINNING SORT BY SITE NAME'
0044      CALL MSORT(SVEC,NPAGE,IX,30,T,TT)
0045      TYPE *, '*** SORT COMPLETED ***'
      C
      C      OPEN THE OUTPUT DATA FILE
      C
0046      OPEN (UNIT=2,NAME='CDAWG.CAT',STATUS='NEW')
      C
      C      OPEN A TEMP DATA FILE WHICH WILL HAVE THE PAGE NUMBER
      C      FOR EACH RECORD
      C
0047      OPEN (UNIT=3,NAME='CAT.PGN',ACCESS='DIRECT',STATUS='NEW',
1      RECL=1)
0048      DO 130 I = 1,NPAGE
0049      NREC = IX(I)
0050      READ(1'NREC,ERR=110) ((CPAGE(J,K), J = 1,NCOL), K = 1,NLIN)
      C
      C      SAVE THE PAGE # FOR THIS RECORD
      C
0051      WRITE(3'NREC) NSEC,NPAG
0052      WRITE(2,10120)
0053      10120 FORMAT('1')
0054      WRITE(2,10125) ((CPAGE(J,K), J = 1,NCOL), K = 1,NLIN)
0055      10125 FORMAT(1X,<NCOL>A1)
0056      WRITE(2,10127) NSEC,NPAG
0057      10127 FORMAT(//48X,I3,'-',I3)
0058      NPAG = NPAG + 1

```

```
0059 130 WRITE(5,20010) I,NREC,(CPAGE(J,1), J = 25,54)
0060 20010 FORMAT(1X,I3.3,1X,I3.3,5X,30A1)
0061 STOP
0062 END
```

PROGRAM SECTIONS

Name	Size	Attributes
\$CODE1	002406 643	RW,I,CON,LCL
\$PDATA	000556 183	RW,D,CON,LCL
\$IDATA	000100 32	RW,D,CON,LCL
\$VARS 023002	4865	RW,D,CON,LCL
\$TEMPS	000002 1	RW,D,CON,LCL

Total Space Allocated = 026270 5724

No FPP Instructions Generated


```

0001      PROGRAM XREF1
          C
          C      PROGRAM TO READ RANDOM ACCESS FILE WITH CDAWG CATALOG
          C      AND GENERATE A CROSS REFERENCE TABLE OF SITE NUMBER,
          C      SITE NAME AND PAGE # ORDERED BY SITE #
          C
          C
          C      VERSION: 1A
          C      BY: J. SILVERSTEIN
          C      DATE: 11-OCT-84
          C

0002      PARAMETER MAXPAG=122                ! # OF PAGES
0003      PARAMETER NCOL=98                   ! # OF COLUMNS / PAGE
0004      PARAMETER NLIN=58                   ! # OF LINES / PAGE
0005      BYTE CPAGE(NCOL,NLIN)               ! CATALOG PAGE
0006      BYTE SEQNUM                         ! SEQUENCE # USED TO SORT
0007      BYTE SVEC(11,MAXPAG)                ! SORT VECTOR
0008      BYTE T(11)                          ! TEMP STORAGE FOR SORT
0009      BYTE TT(11)                         !
0010      INTEGER IX(MAXPAG)                  ! SORT INDEX ARRAY

          C
          C      BLANK THE SORT VECTOR
          C

0011      DO 10 I = 1,11
0012      DO 10 J = 1,MAXPAG
0013      10  SVEC(I,J) = ' '
          C
          C      OPEN CATALOG DATA FILE
          C

0014      OPEN (UNIT=1,NAME='CDAWG.RAC;1',STATUS='OLD',READONLY,
1      ACCESS='DIRECT')
0015      NPAGE = 0
          C
          C      READ A CATALOG PAGE
          C

0016      100 READ(1,NPAGE+2,ERR=110) ((CPAGE(I,J), I = 1,NCOL), J = 1,NLIN)
          C
          C      COUNT IT
          C

0017      NPAGE = NPAGE + 1
0018      IF(NPAGE .GT. MAXPAG) STOP 'TOO MANY PAGES!'
          C
          C      PUT SITE # IN SORT VECTOR
          C

0019      CALL MOV(SVEC(1,NPAGE),10)
          C
          C      LOOK FOR A '(Cont.)' IN THE FIRST LINE
          C

0020      NCS = LOOKUP('(',CPAGE(25,1),1,1,40)
0021      IF(NCS .EQ. 0) THEN
          C
          C      NOT FOUND - RESET SEQ CNTR
          C

0022      SEQNUM = '0'
0023      ELSE

```

```

C
C      ADD SEQUENCE # TO SITE NAME
C
0024      SEQNUM = SEQNUM + 1
0025      SVEC(11,NPAGE)=SEQNUM
0026      ENDIF
0027      WRITE(5,20000) NPAGE,(SVEC(I,NPAGE), I = 1,11)
0028      20000 FORMAT(1X,I3.3,5X,11A1)
0029      GO TO 100
C
C      NOW WE WILL SORT BY SITE NUMBER
C
0030      110 DO 120 I = 1,MAXPAG
0031      120 IX(I) = I+1
0032      TYPE *, '*** BEGINNING SORT BY SITE NUMBER'
0033      CALL MSORT(SVEC,NPAGE,IX,11,T,TT)
0034      TYPE *, '*** SORT COMPLETED ***'
C
C      OPEN THE OUTPUT DATA FILE
C
0035      OPEN (UNIT=2,NAME='XREF1.PRT',STATUS='NEW')
C
C      OPEN TEMP DATA FILE WHICH HAS THE PAGE NUMBERS
C      FOR EACH RECORD
C
0036      OPEN (UNIT=3,NAME='CAT.PGN',ACCESS='DIRECT',STATUS='OLD',
1      READONLY)
0037      NLines = 0
0038      NPAGES = 0
0039      DO 130 I = 1,NPAGE
0040      NREC = IX(I)
0041      READ(1'NREC,ERR=110) ((CPAGE(J,K), J = 1,NCOL), K = 1,NLIN)
0042      READ(3'NREC) NSEC,NPAG
0043      IF(NLines .EQ. 0) THEN
0044      IF(NPAGES .EQ. 0) THEN
0045      WRITE(2,10120)
0046      10120 FORMAT('1'///,30X,'CATALOGUE CROSS REFERENCE BY SITE CODE'///)
0047      NPAGES = 1
0048      ELSE
0049      WRITE(2,10121)
0050      10121 FORMAT('1'///30X,'CATALOGUE CROSS REFERENCE BY SITE CODE (Cont.)'///)
0051      NPAGES = NPAGES + 1
0052      ENDIF
0053      WRITE(2,10122)
0054      10122 FORMAT(19X,'Site Code',6X,'Site Name',26X,'Page Number'//)
0055      ENDIF
0056      IF(SVEC(11,I) .EQ. ' ') THEN
0057      WRITE(2,10123) (CPAGE(J,2), J = 25,34),(CPAGE(J,1), J = 25,54),
1      NSEC,NPAG
0058      10123 FORMAT(19X,10A1,5X,30A1,5X,I3,'-',I3)
0059      NLines = NLines + 1
0060      IF(NLines .EQ. 42) THEN
0061      NLines = 0
0062      WRITE(2,10124) NPAGES
0063      10124 FORMAT(////////50X,'A-',I1)

```



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0064      ENDIF
0065      ENDIF
0066      130  CONTINUE
0067      DO 135 I = NLines,42
0068      135  WRITE(2,10135)
0069      10135 FORMAT()
0070      WRITE(2,10124) NPAGES
0071      STOP 'END XREF1'
0072      END

```

PROGRAM SECTIONS

Name	Size	Attributes
\$CODE1	002422 649	RW,I,CON,LCL
\$PDATA	000660 216	RW,D,CON,LCL
\$IDATA	000060 24	RW,D,CON,LCL
\$VARS 016222	3657	RW,D,CON,LCL
\$STEMPS	000002 1	RW,D,CON,LCL

Total Space Allocated = 021606 4547

No FPP Instructions Generated

```

0001      PROGRAM XREF2
          C
          C      PROGRAM TO READ RANDOM ACCESS FILE WITH CDAWG CATALOG
          C      AND GENERATE A CROSS REFERENCE TABLE OF COUNTY, SITE NAME,
          C      SITE # AND PAGE # ORDERED BY COUNTY
          C
          C
          C      VERSION: 1A
          C      BY: J. SILVERSTEIN
          C      DATE: 11-OCT-84
          C

0002      PARAMETER MAXPAG=122                ! # OF PAGES
0003      PARAMETER NCOL=98                   ! # OF COLUMNS / PAGE
0004      PARAMETER NLIN=58                   ! # OF LINES / PAGE
0005      BYTE CPAGE(NCOL,NLIN)               ! CATALOG PAGE
0006      BYTE SEQNUM                         ! SEQUENCE # USED TO SORT
0007      BYTE SVEC(42,MAXPAG)               ! SORT VECTOR
0008      BYTE T(42)                          ! TEMP STORAGE FOR SORT
0009      BYTE TT(42)                         !
0010      CHARACTER*18 CNTY(8)                ! TABLE OF COUNTY NAMES
0011      INTEGER CTYTAB(8)                   ! COUNTY CONVERSION TABLE
0012      INTEGER IX(MAXPAG)                  ! SORT INDEX ARRAY
0013      INTEGER LSTCTY                      ! LAST COUNTY CODE
          C
          C      SET UP CONVERSION TABLE TO CONVERT FROM COUNTY CODE
          C      TO SORT CODE
          C
0014      DATA CTYTAB / '13','14','15','70','26','33','36','99' /
          C
          C      DEFINE TABLE OF COUNTY NAMES
          C
0015      DATA CNTY /
          1  'Imperial',
          2  'Inyo',
          3  'Kern',
          4  'Los Angeles',
          5  'Mono',
          6  'Riverside',
          7  'San Bernardino',
          8  'Outside California' /
          C
          C      BLANK THE SORT VECTOR
          C
0016      DO 10 I = 1,32
0017      DO 10 J = 1,MAXPAG
0018      10  SVEC(I,J) = ' '
          C
          C      OPEN CATALOG DATA FILE
          C
0019      OPEN (UNIT=1,NAME='CDAWG.RAC;1',STATUS='OLD',READONLY,
          1  ACCESS='DIRECT')
0020      NPAGE = 0
          C
          C      READ A CATALOG PAGE
          C

```



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0021 100 READ(1'NPAGE+2,ERR=110) ((CPAGE(I,J), I = 1,NCOL), J = 1,NLIN)
      C
      C COUNT IT
      C
0022 NPAGE = NPAGE + 1
0023 IF(NPAGE .GT. MAXPAG) STOP 'TOO MANY PAGES!'
      C
      C LOOKUP COUNTY CODE
      C
0024 NCC = LOOKUP(CPAGE(28,2),CTYTAB,2,2,8)
0025 IF(NCC .EQ. 0) THEN
0026 WRITE(5,10100) (CPAGE(I,2), I = 25,34)
0027 10100 FORMAT(' *** ILLEGAL COUNTY CODE - ',10A1,' ***')
0028 STOP 'ILLEGAL CODE'
0029 ENDIF
      C
      C PUT COUNTY SORT CODE AND SITE NAME IN SORT VECTOR
      C
0030 SVEC(1,NPAGE) = NCC + "60
      C
      C LOOK FOR A '(Cont.)' IN THE FIRST LINE
      C
0031 NCS = LOOKUP('(',CPAGE(25,1),1,1,40)
0032 IF(NCS .EQ. 0) THEN
      C
      C NOT FOUND - RESET SEQ CNTR AND ADD SITE NAME TO SORT VECTOR
      C
0033 CALL MOVS(CPAGE(25,1),SVEC(2,NPAGE),30)
0034 SEQNUM = '0'
0035 ELSE
      C
      C ADD SITE NAME AND SEQUENCE # TO SORT VECTOR
      C
0036 SEQNUM = SEQNUM + 1
0037 CALL MOVS(CPAGE(25,1),SVEC(2,NPAGE),NCS-3.)
0038 SVEC(32,NPAGE)=SEQNUM
0039 ENDIF
      C
      C ADD SITE CODE TO SORT VECTOR
      C
0040 CALL MOVS(CPAGE(25,2),SVEC(33,NPAGE),10)
0041 WRITE(5,20000) NPAGE,(SVEC(I,NPAGE), I = 1,42)
0042 20000 FORMAT(1X,I3.3,5X,42A1)
0043 GO TO 100
      C
      C NOW WE WILL SORT BY SITE NUMBER
      C
0044 110 DO 120 I = 1,MAXPAG
0045 120 IX(I) = I+1
0046 TYPE *, '*** BEGINNING SORT BY SITE NUMBER'
0047 CALL MSORT(SVEC,NPAGE,IX,42,T,TT)
0048 TYPE *, '*** SORT COMPLETED ***'
      C
      C OPEN THE OUTPUT DATA FILE
      C

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```

0049      OPEN (UNIT=2,NAME='XREF2.XRF',STATUS='NEW')
      C
      C      OPEN TEMP DATA FILE WHICH HAS THE PAGE NUMBERS
      C      FOR EACH RECORD
      C
0050      OPEN (UNIT=3,NAME='CAT.PGN',ACCESS='DIRECT',STATUS='OLD',
1      READONLY)
0051      NLines = 0
0052      NPAGES = 0
0053      LSTCTY = 0
0054      DO 130 I = 1,NPAGE
0055      NREC = IX(I)
0056      READ(1'NREC,ERR=110) ((CPAGE(J,K), J = 1,NCOL), K = 1,NLIN)
0057      READ(3'NREC) NSEC,NPAG
0058      IF(NLines .EQ. 0) THEN
0059      IF(NPAGES .EQ. 0) THEN
0060      WRITE(2,10120)
0061      10120 FORMAT('1'///32X,'CATALOGUE CROSS REFERENCE BY COUNTY'///)
0062      ELSE
0063      WRITE(2,10121)
0064      10121 FORMAT('1'///32X,'CATALOGUE CROSS REFERENCE BY COUNTY (Cont.)'///)
0065      ENDIF
0066      NPAGES = NPAGES + 1
0067      WRITE(2,10122)
0068      10122 FORMAT(9X,'County',17X,'Site Name',26X,'Site Code',5X,'Page Number'///)
0069      ENDIF
      C
      C      GET THE COUNTY CODE
      C
0070      NCC = LOOKUP(CPAGE(28,2),CTYTAB,2,2,8)
      C
      C      FIRST SEE IF THIS COUNTY IS THE SAME AS THE LAST COUNTY
      C      OR IF THIS IS THE FIRST LINE ON A PAGE
      C
0071      IF(NLines .EQ. 0 .AND. SVEC(32,I) .EQ. ' ') GO TO 123
0072      IF(NCC .NE. LSTCTY) THEN
      C
      C      NOT THE SAME PRINT THIS LINE AND SET LAST COUNTY TO THIS COUNTY
      C
0073      123 LSTCTY = NCC
0074      WRITE(2,10123) CNTY(NCC),(CPAGE(J,1), J = 25,54),
1      (CPAGE(J,2), J = 25,34),NSEC,NPAG
0075      10123 FORMAT(9X,A,5X,30A1,5X,10A1,7X,I3,'-',I3)
0076      GO TO 125
0077      ENDIF
      C
      C      IF COUNTIES ARE THE SAME - SEE IF THIS IS A (Cont.) SITE
      C
0078      IF(SVEC(32,I) .NE. ' ') GO TO 130
      C
      C      NO - PRINT WITHOUT COUNTY
      C
0079      WRITE(2,10124) (CPAGE(J,1), J = 25,54),
1      (CPAGE(J,2), J = 25,34),NSEC,NPAG
0080      10124 FORMAT(27X,5X,30A1,5X,10A1,7X,I3,'-',I3)

```



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0081      125      NLines = NLines + 1
0082              IF(NLines .EQ. 42) THEN
0083                  NLines = 0
0084                  WRITE(2,10125) NPAGES
0085      10125      FORMAT(////////50X,'B-',I1)
0086                  ENDIF
0087      130      CONTINUE
0088              DO 135 I = NLines+1,42
0089      135      WRITE(2,10135)
0090      10135      FORMAT()
0091              WRITE(2,10125) NPAGES
0092              STOP 'END XREF2'
0093              END

```

PROGRAM SECTIONS

Name	Size	Attributes
\$CODE1	003330 876	RW,I,CON,LCL
\$PDATA	001030 268	RW,D,CON,LCL
\$IDATA	000120 40	RW,D,CON,LCL
\$VARS 026072	5661	RW,D,CON,LCL
\$TEMPS	000004 2	RW,D,CON,LCL

Total Space Allocated = 032576 6847

No FPP Instructions Generated

```

0001      PROGRAM XREF3
          C
          C      PROGRAM TO READ RANDOM ACCESS FILE WITH CDAWG CATALOG
          C      AND GENERATE A CROSS REFERENCE TABLE OF AGENCY,SITE NAME,
          C      SITE # AND PAGE # ORDERED BY AGENCY
          C
          C
          C      VERSION: 1A
          C      BY: J. SILVERSTEIN
          C      DATE: 11-OCT-84
          C

0002      PARAMETER MAXPAG=122                ! # OF PAGES
0003      PARAMETER NCOL=98                  ! # OF COLUMNS / PAGE
0004      PARAMETER NLIN=58                  ! # OF LINES / PAGE
0005      BYTE CPAGE(NCOL,NLIN)              ! CATALOG PAGE
0006      BYTE SEQNUM                        ! SEQUENCE # USED TO SORT
0007      BYTE SVEC(43,MAXPAG)              ! SORT VECTOR
0008      BYTE T(43)                        ! TEMP STORAGE FOR SORT
0009      BYTE TT(43)                        !
0010      CHARACTER*41 AGENCY(16)            ! TABLE OF AGENCY NAMES
0011      INTEGER AGETAB(16)                 ! AGENCY CONVERSION TABLE
0012      INTEGER IX(MAXPAG)                 ! SORT INDEX ARRAY
0013      INTEGER LSTAGE                      ! LAST AGENCY CODE
          C
          C      SET UP CONVERSION TABLE TO CONVERT FROM AGENCY CODE
          C      TO SORT CODE
          C

0014      DATA AGETAB / '05','00','11','12','07','14','10','06','08',
          1  '04','03','01','02','09','13','30' /
          C
          C      DEFINE TABLE OF AGENCY NAMES
          C

0015      DATA AGENCY /
          1  'Air Force Sites',
          2  'California Air Resources Board',
          3  'Department of Transportation (CALTRANS)',
          4  'EPA Las Vegas',
          5  'EPRI',
          6  'EPRI Western Regional Air Quality Studies',
          7  'Lawrence Livermore Labs',
          8  'National Park Service',
          9  'National Weather Service',
          1  'NWC, China Lake',
          1  'San Diego Gas and Electric',
          2  'Southern California Edison',
          3  'Southern California Gas Company',
          4  'University run sites',
          5  'U.S. Army',
          6  'Miscellaneous sites' /
          C
          C      BLANK THE SORT VECTOR
          C

0016      DO 10 I = 1,43
0017      DO 10 J = 1,MAXPAG
0018      10  SVEC(I,J) = ' '

```



```

C
C   OPEN CATALOG DATA FILE
C
0019   OPEN (UNIT=1,NAME='CDAWG.RAC;1',STATUS='OLD',READONLY,
        1   ACCESS='DIRECT')
0020   NPAGE = 0
C
C   READ A CATALOG PAGE
C
0021   100   READ(1'NPAGE+2,ERR=110) ((CPAGE(I,J), I = 1,NCOL), J = 1,NLIN)
C
C   COUNT IT
C
0022   NPAGE = NPAGE + 1
0023   IF(NPAGE .GT. MAXPAG) STOP 'TOO MANY PAGES!'
C
C   LOOKUP AGENCY CODE
C
0024   NAC = LOOKUP(CPAGE(30,2),AGETAB,2,2,16)
0025   IF(NAC .EQ. 0) THEN
0026   WRITE(5,10100) (CPAGE(I,2), I = 25,34)
0027   10100  FORMAT(' *** ILLEGAL AGENCY CODE - ',10A1,' ***')
0028   STOP 'ILLEGAL CODE'
0029   ENDIF
C
C   PUT AGENCY SORT CODE AND SITE NAME IN SORT VECTOR
C
0030   ENCODE(2,10105,SVEC(1,NPAGE)) NAC
0031   10105  FORMAT(I2.2)
C
C   LOOK FOR A '(Cont.)' IN THE FIRST LINE
C
0032   NCS = LOOKUP('(',CPAGE(25,1),1,1,40)
0033   IF(NCS .EQ. 0) THEN
C
C   NOT FOUND - RESET SEQ CNTR AND ADD SITE NAME TO SORT VECTOR
C
0034   CALL MOVS(CPAGE(25,1),SVEC(3,NPAGE),30)
0035   SEQNUM = '0'
0036   ELSE
C
C   ADD SITE NAME AND SEQUENCE # TO SORT VECTOR
C
0037   SEQNUM = SEQNUM + 1
0038   CALL MOVS(CPAGE(25,1),SVEC(3,NPAGE),NCS-3)
0039   SVEC(33,NPAGE) = SEQNUM
0040   ENDIF
C
C   ADD SITE CODE TO SORT VECTOR
C
0041   CALL MOVS(CPAGE(25,2),SVEC(34,NPAGE),10)
0042   WRITE(5,20000) NPAGE,(SVEC(I,NPAGE), I = 1,43)
0043   20000  FORMAT(1X,I3.3,5X,43A1)
0044   GO TO 100

```

```

C      NOW WE WILL SORT BY SITE NUMBER
C
0045 110 DO 120 I = 1,MAXPAG
0046 120 IX(I) = I+1
0047      TYPE *, '*** BEGINNING SORT BY SITE NUMBER'
0048      CALL MSORT(SVEC,NPAGE,IX,43,T,TT)
0049      TYPE *, '*** SORT COMPLETED ***'
C
C      OPEN THE OUTPUT DATA FILE
C
0050      OPEN (UNIT=2,NAME='XREF3.XRF',STATUS='NEW')
C
C      OPEN TEMP DATA FILE WHICH HAS THE PAGE NUMBERS
C      FOR EACH RECORD
C
0051      OPEN (UNIT=3,NAME='CAT.PGN',ACCESS='DIRECT',STATUS='OLD',
1      READONLY)
0052      NLINES = 0
0053      NPAGES = 0
0054      LSTCTY = 0
0055      DO 130 I = 1,NPAGE
0056      NREC = IX(I)
0057      READ(1,NREC,ERR=110) ((CPAGE(J,K), J = 1,NCOL), K = 1,NLIN)
0058      READ(3,NREC) NSEC,NPAG
0059      IF(NLINES .EQ. 0) THEN
0060      IF(NPAGES .EQ. 0) THEN
0061      WRITE(2,10120)
0062 10120 FORMAT('1'///32X,'CATALOGUE CROSS REFERENCE BY AGENCY'///)
0063      ELSE
0064      WRITE(2,10121)
0065 10121 FORMAT('1'///32X,'CATALOGUE CROSS REFERENCE BY AGENCY (Cont.)'///)
0066      ENDIF
0067      NPAGES = NPAGES + 1
0068      WRITE(2,10122)
0069 10122 FORMAT(98X,'Page'/
1      9X,'Agency',38X,'Site Name',23X,'Site Code',4X,'Number'//)
0070      ENDIF
C
C      GET THE AGENCY CODE
C
0071      NAC = LOOKUP(CPAGE(30,2),AGETAB,2,2,16)
C
C      FIRST SEE IF THIS AGENCY IS THE SAME AS THE LAST AGENCY
C      OR IF THIS IS THE FIRST LINE ON A PAGE
C
0072      IF(NLINES .EQ. 0 .AND. SVEC(33,I) .EQ. ' ') GO TO 123
0073      IF(NAC .NE. LSTAGE) THEN
C
C      NOT THE SAME PRINT THIS LINE AND SET LAST COUNTY TO THIS COUNTY
C
0074 123 LSTAGE = NAC
0075      WRITE(2,10123) AGENCY(NAC),(CPAGE(J,1), J = 25,54),
1      (CPAGE(J,2), J = 25,34),NSEC,NPAG
0076 10123 FORMAT(9X,A,2X,30A1,2X,10A1,2X,I3,'-',I3)
0077      GO TO 125

```



```

0078      ENDIF
          C
          C      IF AGENCIES ARE THE SAME - SEE IF THIS IS A (Cont.) SITE
          C
0079      IF(SVEC(33,I) .NE. ' ') GO TO 130
          C
          C      NO - PRINT WITHOUT AGECCNY
          C
0080      WRITE(2,10124) (CPAGE(J,1), J = 25,54),
          1 (CPAGE(J,2), J = 25,34),NSEC,NPAG
0081      10124 FORMAT(52X,30A1,2X,10A1,2X,I3,'-',I3)
0082      125  NLINES = NLINES + 1
0083      IF(NLINES .EQ. 42) THEN
0084      NLINES = 0
0085      WRITE(2,10125) NPAGES
0086      10125 FORMAT(////////50X,'C-',I1)
0087      ENDIF
0088      130  CONTINUE
0089      DO 135 I = NLINES+1,42
0090      135  WRITE(2,10135)
0091      10135 FORMAT()
0092      WRITE(2,10125) NPAGES
0093      STOP 'END XREF2'
0094      END

```

PROGRAM SECTIONS

Name	Size	Attributes
\$CODE1	003354 886	RW,I,CON,LCL
\$PDATA	001036 271	RW,D,CON,LCL
\$IDATA	000120 40	RW,D,CON,LCL
\$VARS 027310	5988	RW,D,CON,LCL
\$TEMPS	000004 2	RW,D,CON,LCL

Total Space Allocated = 034046 7187

No FPP Instructions Generated

1 SECLON,NORTH,EAST,IZONE,THET)

C

***** UTM

UTM 32

0002	DOUBLE PRECISION SLAT,SLON,NORTH,EAST,A(16),B(4),SECLAT,SECLON,	UTM	33
	+UTZ,SK,THET	UTM	34
0003	REAL*4 MINUS,BLANK	UTM	35
0004	BYTE IPF(40)		
0005	DATA MINUS,BLANK /1H-,1H /	UTM	36
0006	IZON2 = 0		
	C		
	C USE THE CLARK(1866) SPHEROID		
	C	UTM	54
0007	A(5)=5.0D5	UTM	55
0008	A(6)=0.0D0	UTM	56
0009	IF(FLAG1.EQ.MINUS)A(6)=10.0D6	UTM	57
0010	IF(IZONE.LT.0)A(6)=10.0D6	UTM	58
0011	A(7)=0.0D0	UTM	59
0012	A(8)=0.9996D0	UTM	60
	C		
	C		
	C		
0013	A(15)=6378206.4D0	UTM	62
0014	B(1)=6356583.8D0	UTM	63
0015	A(16)= ((A(15)-B(1))/A(15))*((A(15)+B(1))/A(15))	UTM	76
	C	UTM	77
	C	UTM	78
	C	UTM	79
0016	CALL TMCOF(A)	UTM	80
	C	UTM	81
	C	UTM	82
	C	UTM	83
0017	IF(EAST.NE.0.0D0)GO TO 100	UTM	84
	C	UTM	85
	C	UTM	86
	C	UTM	87
	C	UTM	88
0018	IF(IZONE.EQ.0)GO TO 35	UTM	89
0019	GO TO 22	UTM	90
	C	UTM	91
	C	UTM	92
0020	21 IZONE=IZON2	UTM	93
0021	22 IF(IABS(IZONE)-30)25,25,30	UTM	94
0022	25 UTZ=30.0D0-IABS(IZONE)	UTM	95
0023	A(9)=((UTZ*6.0D0)+3.0D0)*3600.0D0	UTM	96
0024	IF(IZON2.NE.0)GO TO 50	UTM	97
0025	GO TO 40	UTM	98
0026	30 UTZ=IABS(IZONE)-30.0D0	UTM	99
0027	A(9)=((UTZ*6.0D0)-3.0D0)*(-3600.0D0)	UTM	100
0028	IF(IZON2.NE.0)GO TO 50	UTM	101
0029	GO TO 40	UTM	102
	C	UTM	103
	C	UTM	104
	C	UTM	105
	C	UTM	106
0030	35 IZONE=30-(IDLON/6)	UTM	107
0031	IF(FLAG2.EQ.MINUS)IZONE=IDLON/6+31	UTM	108
0032	UTZ=30.0D0-IZONE	UTM	109
0033	A(9)=((UTZ*6.0D0)+3.0D0)*3600.0D0	UTM	110

C			UTM 111
C	CONVERT LATITUDE AND LONGITUDE TO SECONDS		UTM 112
C			UTM 113
0034	40 SLAT=IDLAT*3600.DO+IMLAT*60.DO+SECLAT		UTM 114
0035	IF(FLAG1.EQ.MINUS)SLAT=SLAT*(-1.0D0)		UTM 115
0036	SLON=IDLON*3600.DO+IMLON*60.DO+SECLON		UTM 116
0037	IF(FLAG2.EQ.MINUS)SLON=SLON*(-1.0D0)		UTM 117
C			UTM 118
C	CONVERT GEODETIC TO UTM COORDINATES		UTM 119
C			UTM 120
0038	50 CALL TMFWD(SLAT,SLON,NORTH,EAST,A,IERR,SK,THET)		UTM 121
0039	IF(FLAG1.EQ.MINUS.AND.IZONE.GT.0)IZONE=IZONE*(-1)		UTM 122
0040	RETURN		
C			UTM 124
C	COMPUTE CENTRAL MERIDIAN IN SECONDS FROM IZONE INPUT		UTM 125
C			UTM 126
0041	100 UTZ=30.0D0-IABS(IZONE)		UTM 127
0042	A(9)=((UTZ*6.0D0)+3.0D0)*3600.0D0		UTM 128
C			UTM 129
C	CONVERT UTM COORDINATES TO GEODETIC		UTM 130
C			UTM 131
0043	CALL TMINV(NORTH,EAST,SLAT,SLON,A,IERR,SK,THET)		UTM 132
C			UTM 133
C	CONVERT SLAT AND SLON TO STANDARD DMS FORMAT		UTM 134
C			UTM 135
0044	IF(IZONE.LT.0)FLAG1=MINUS		UTM 136
0045	IF(SLAT.LT.0.0D0)FLAG1=MINUS		UTM 137
0046	IF(SLAT.LT.0.0D0)SLAT=SLAT*(-1.0D0)		UTM 138
0047	IDLAT=SLAT/3600.DO		UTM 139
0048	IMLAT=(SLAT-(IDLAT*3600.DO))/60.0D0		UTM 140
0049	SECLAT=SLAT-(IDLAT*3600.DO)-(IMLAT*60.DO)		UTM 141
0050	IF(SLON.LT.0.0D0)FLAG2=MINUS		UTM 142
0051	IF(SLON.LT.0.0D0)SLON=SLON*(-1.0D0)		UTM 143
0052	IDLON=SLON/3600.0D0		UTM 144
0053	IMLON=(SLON-(IDLON*3600.DO))/60.0D0		UTM 145
0054	SECLON=SLON-(IDLON*3600.DO)-(IMLON*60.DO)		UTM 146
0055	RETURN		
0056	END		UTM 170

PROGRAM SECTIONS

Name	Size	Attributes
\$CODE1	001700 480	RW,I,CON,LCL
\$PDATA	000054 22	RW,D,CON,LCL
\$IDATA	000074 30	RW,D,CON,LCL
\$VARS 000364	122	RW,D,CON,LCL

Total Space Allocated = 002434 654


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0001      SUBROUTINE TMCOF(A)                                TMCOF 1
      C SETS UP COEFFICIENTS FOR CONVERTING GEODETIC TO RECTIFYING LATITUDE TMCOF 2
      C AND CONVERSELY TMCOF 3
0002      DOUBLE PRECISION A(16),FAC TMCOF 4
0003      6 A(10)=(((A(16)*(7.0D0/3.2D1)+(5.0D0/1.6D1))*A(16)+0.5D0)*A(16) TMCOF 5
      * +1.0D0)*A(16)*0.25D0 TMCOF 6
0004      A(1)=-(((A(10)*(1.95D2/6.4D1)+3.25D0)*A(10)+3.75D0)*A(10)+3.0D0)* TMCOF 7
      * A(10) TMCOF 8
0005      A(2)=(((1.455D3/3.2D1)*A(10)+(7.0D1/3.0D0))*A(10)+7.5D0)*A(10)**2 TMCOF 9
0006      A(3)=-((7.0D1/3.0D0)+A(10)*(9.45D2/8.0D0))*A(10)**3 TMCOF10
0007      A(4)=(3.15D2/4.0D0)*A(10)**4 TMCOF11
0008      A(11)=(((7.75D0-(6.57D2/6.4D1)*A(10))*A(10)-5.25D0)*A(10)+3.0D0)* TMCOF12
      * A(10) TMCOF13
0009      A(12)=(((5.045D3/3.2D1)*A(10)-(1.51D2/3.0D0))*A(10)+10.5D0)* TMCOF14
      * A(10)**2 TMCOF15
0010      A(13)=((1.51D2/3.0D0)-(3.291D3/8.0D0)*A(10))*A(10)**3 TMCOF16
0011      A(14)=(1.097D3/4.0D0)*A(10)**4 TMCOF17
      C A(1) TO A(4) ARE FOR GEODETIC TO RECTIFYING LATITUDE TMCOF18
      C CONVERSION WHILE A(11) TO A(14) ARE COEFFICIENTS FOR TMCOF19
      C RECTIFYING TO GEODETIC CONVERSION. TMCOF20
0012      FAC=A(10)*A(10) TMCOF21
0013      A(10)=(((2.25D2/6.4D1)*FAC+2.25D0)*FAC+1.0D0)*(1.0D0-FAC)* TMCOF22
      * (1.0D0-A(10))*A(15) TMCOF23
      C A(10) IS NOW SET TO RADIUS OF SPHERE WITH GREAT CIRCLE LENGTH TMCOF24
      C EQUAL TO SPHEROID MERIDIAN LENGTH. TMCOF25
0014      RETURN TMCOF26
0015      END TMCOF27-

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PROGRAM SECTIONS

Name	Size	Attributes
\$CODE1	001500 416	RW,I,CON,LCL
\$PDATA	000070 28	RW,D,CON,LCL
\$IDATA	000012 5	RW,D,CON,LCL
\$VARS 000010 4		RW,D,CON,LCL
\$TEMPS	000014 6	RW,D,CON,LCL

Total Space Allocated = 001626 459


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0001      SUBROUTINE TMINV(NORTH,EAST,SLAT,SLON,A,IERR,SK,THET)          TMINV 1
C COMPUTES LATITUDE AND LONGITUDE IN SECONDS (SLAT AND SLON) FROM GIVEN TMINV 2
C RECTANGULAR COORDINATES X AND Y FOR TRANSVERSE MERCATOR PROJECTION. TMINV 3
C A IS ARRAY OF PARAMETERS USED IN COMPUTATION, DESCRIBED BY COMMENTS TMINV 4
C FOR TMFWD SUBROUTINE. IERR SET TO 1 IF GRID DISTANCE FROM CENTRAL TMINV 5
C MERIDIAN EXCEEDS 0.2 OF SPHEROID SEMIMAJOR AXIS NUMERICALLY OR IF TMINV 6
C ABSOLUTE VALUE OF RECTIFYING LATITUDE EXCEEDS 1.47 RADIANS. SOUTH TMINV 7
C LATITUDES AND EAST LONGITUDE ARE NEGATIVE. TMINV 8
0002      DOUBLE PRECISION      SLAT,SLON,A(16),B(12),SINW,COSW,RN,T,TS,ETAS, TMINV 9
      X NORTH,EAST,X,Y,SK,BN,BNS,THET TMINV10
0003      Y=NORTH TMINV11
0004      X=EAST TMINV12
0005      IERR=0 TMINV13
0006      B(9)=((A(5)-X)*1.0D-6)/A(8) TMINV14
0007      IF (DABS(B(9))-1.0D-7*A(15)*2.0D0)8,8,4 TMINV15
0008      4 IERR=1 TMINV16
0009      SLAT=0.0 TMINV17
0010      SLON=0.0 TMINV18
0011      GO TO 99 TMINV19
0012      8 B(10)=((Y-A(6))/A(8)+A(7))/A(10) TMINV20
0013      IF(DABS(B(10))-1.47D0)10,10,4 TMINV21
0014      10 SINW=DSIN(B(10)) TMINV22
0015      COSW=DCOS(B(10)) TMINV23
0016      B(12)=COSW*COSW TMINV24
0017      B(11)=(((A(14)*B(12)+A(13))*B(12)+A(12))*B(12)+A(11))*SINW*COSW TMINV25
      * +B(10) TMINV26
0018      SINW=DSIN(B(11)) TMINV27
0019      COSW=DCOS(B(11)) TMINV28
0020      RN=DSQRT(1.0D0-A(16)*SINW*SINW)*1.0D6/A(15) TMINV29
0021      T=SINW/COSW TMINV30
0022      TS=T*T TMINV31
0023      B(12)=COSW*COSW TMINV32
0024      ETAS=A(16)*B(12)/(1.0D0-A(16)) TMINV33
0025      B(1)=RN/COSW TMINV34
0026      B(2)=-T*(1.0D0+ETAS)*RN*RN/2.0D0 TMINV35
0027      B(3)=-((1.0D0+2.0D0*TS+ETAS)*B(1)*RN*RN/6.0D0 TMINV36
0028      B(4)=((-6.0D0-ETAS*9.0D0)*ETAS+3.0D0)*TS+(6.0D0-ETAS*3.0D0)*ETAS TMINV37
      * +5.0D0)*T*RN**4/24.0D0 TMINV38
0029      B(5)=((TS*24.0D0+ETAS*8.0D0+28.0D0)*TS+ETAS*6.0D0+5.0D0)*B(1)* TMINV39
      * RN**4/120.0D0 TMINV40
0030      B(6)=(((ETAS*45.0D0-45.0D0)*TS+ETAS*162.0D0-90.0D0)*TS TMINV41
      * -ETAS*107.0D0-61.0D0)*T*RN**6/720.0D0 TMINV42
0031      B(7)=-(((TS*720.0D0+1320.0D0)*TS+662.0D0)*TS+61.0D0)*B(1)*RN**6/ TMINV43
      * 5040.0D0 TMINV44
0032      B(8)=(((TS*1575.0D0+4095.0D0)*TS+3633.0D0)*TS+1385.0D0)*T*RN**8/ TMINV45
      * 40320.0D0 TMINV46
0033      B(10)=B(9)*B(9) TMINV47
0034      SLAT=((((B(8)*B(10)+B(6))*B(10)+B(4))*B(10)+B(2))*B(10)+B(11))* TMINV48
      * 206264.8062470964D0 TMINV49
0035      SLON= (((B(7)*B(10)+B(5))*B(10)+B(3))*B(10)+B(1))*B(9)* TMINV50
      * 206264.8062470964D0 + A(9) TMINV51
0036      BN=B(9)*RN TMINV52
0037      BNS=BN**2 TMINV53
0038      SK=1.0D0+((1.0D0+ETAS)/2.0D0)*BNS+(1.0D0+6.0D0*ETAS+9.0D0 TMINV54
      X*ETAS*ETAS+4.0D0*ETAS*ETAS*ETAS-24.0D0*ETAS*ETAS*TS-24.0D0 TMINV55

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0039      X*ETAS*ETAS*ETAS*TS)*BNS*BNS/24.0DO+(BNS*BNS*BNS)/720.0DO      TMINV56
          SK=SK*A(8)                                                         TMINV57
          C      COMPUTE CONVERGENCE ANGLE—THET                             TMINV58
          C                                                         TMINV59
0040      THET=((((((-24.0DO*ETAS-27.0DO)*ETAS-7.0DO)*ETAS+1.0DO)*ETAS)*TS TMINV60
          X)+(5.0DO*TS+3.0DO*TS**2)+((((11.0DO*ETAS+20.0DO)*ETAS+9.0DO)*   TMINV61
          XETAS+2.0DO)*ETAS)+2.0DO)*(BN**5)*T/15.0DO)+(T*BN)- (((45.0DO*TS  TMINV62
          X+105.0DO)*TS+77.0DO)*TS+17.0DO)*((BN**7)*T/315.0DO)-(((1.0DO+TS  TMINV63
          X-ETAS-2.0DO*ETAS**2)*BN**3)*T/3.0DO)                             TMINV64
0041      THET=-THET*206264.8062470964D0                                   TMINV65
0042      99 RETURN                                                         TMINV66
0043      END                                                                TMINV67-

```

PROGRAM SECTIONS

Name	Size	Attributes
\$CODE1	003126 811	RW,I,CON,LCL
\$PDATA	000150 52	RW,D,CON,LCL
\$IDATA	000022 9	RW,D,CON,LCL
\$VARS 000260 88		RW,D,CON,LCL
\$TEMPS	000010 4	RW,D,CON,LCL

Total Space Allocated = 003610 964

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0001      SUBROUTINE TMFWD(SLAT,SLON,NORTH,EAST,A,IERR,SK,THET)          TMFWD 1
C CONVERTS LATITUDE AND LONGITUDE IN SECONDS (SLAT AND SLON) TO X AND TMFWD 2
C Y ON TRANSVERSE MERCATOR PROJECTION. A(1) TO A(4) ARE COEFFICIENTS TMFWD 3
C USED TO CONVERT GEODETIC LATITUDE TO RECTIFYING LATITUDE, A(5) IS TMFWD 4
C FALSE EASTING, A(6) IS FALSE NORTHING,A(8) IS SCALE FACTOR AT CENTRAL TMFWD 5
C MERIDIAN. A(9) IS CENTRAL MERIDIAN IN SECONDS. A(10) IS RADIUS TMFWD 6
C OF SPHERE HAVING A GREAT CIRCLE LENGTH EQUAL TO SPHEROID MERIDIAN TMFWD 7
C LENGTH. A(11) TO A(14) ARE COEFFICIENTS TO CONVERT RECTIFYING TMFWD 8
C LATITUDE TO GEODETIC LATITUDE. A(15) IS SEMIMAJOR AXIS OF TMFWD 9
C SPHEROID, AND A(16) IS ECCENTRICITY SQUARED. IERR IS SET TO 1 TMFWD10
C IF LATEXCEEDS 84 DEGREES, OR LONG EXCEEDS 0.16 RADIANS TMFWD11
C TMFWD12
0002      DOUBLE PRECISION SLAT,SLON,      A(16),B(12),SINP,COSP,RN,T,TS,ETAS, TMFWD13
XNORTH,EAST,SK,THET TMFWD14
0003      IERR=0 TMFWD15
0004      IF(DABS(SLAT)-302400.0D0) 8,8,4 TMFWD16
0005      4 IERR=1 TMFWD17
0006      EAST=0.0D0 TMFWD18
0007      NORTH=0.0D0 TMFWD19
0008      GO TO 99 TMFWD20
0009      8 B(10)=(A(9)-SLON) *4.84813681109536D-6 TMFWD21
0010      IF(DABS(B(10))-0.16D0)10,10,4 TMFWD22
0011      10 B(9)=SLAT*4.84813681109536D-6 TMFWD23
0012      SINP=DSIN(B(9)) TMFWD24
0013      COSP=DCOS(B(9)) TMFWD25
0014      RN=A(15)/DSQRT(1.0D0-A(16)*SINP*SINP) TMFWD26
0015      T=SINP/COSP TMFWD27
0016      TS=T*T TMFWD28
0017      B(11)=COSP*COSP TMFWD29
0018      ETAS=A(16)*B(11)/(1.0D0-A(16)) TMFWD30
0019      B(1)=RN*COSP TMFWD31
0020      B(3)=(1.0D0-TS+ETAS)*B(1)*B(11)/6.0D0 TMFWD32
0021      B(5)=((TS-18.0D0)*TS+5.0D0+(14.0D0-58.0D0*TS)*ETAS)*B(1)*B(11)* TMFWD33
* B(11)/120.0D0 TMFWD34
0022      B(7)=(((179.0D0-TS)*TS-479.0D0)*TS+61.0D0)*B(1)*B(11)**3/5040.0D0 TMFWD35
0023      B(12)=B(10)*B(10) TMFWD36
0024      EAST=(((B(7)*B(12)+B(5))*B(12)+B(3))*B(12)+B(1))*B(10)*A(8)+ TMFWD37
XA(5) TMFWD38
0025      B(2)=RN*B(11)*T/2.0D0 TMFWD39
0026      B(4)=(ETAS*(9.0D0+4.0D0*ETAS)+5.0D0-TS)*B(2)*B(11)/12.0D0 TMFWD40
0027      B(6)=((TS-58.0D0)*TS+61.0D0+(270.0D0-330.0D0*TS)*ETAS)*B(2)* TMFWD41
* B(11)*B(11)/360.0D0 TMFWD42
0028      B(8)=(((543.0D0-TS)*TS-3111.0D0)*TS+1385.0D0)*B(2)*B(11)**3/ TMFWD43
* 20160.0D0 TMFWD44
0029      NORTH=(((B(8)*B(12)+B(6))*B(12)+B(4))*B(12)+B(2))*B(12)+ TMFWD45
* (((A(4)*B(11)+A(3))*B(11)+A(2))*B(11)+A(1))*SINP*COSP+B(9)) TMFWD46
* *A(10) TMFWD47
0030      NORTH=(NORTH-A(7))*A(8)+A(6) TMFWD48
C TMFWD49
C COMPUTE SCALE FACTOR SK TMFWD50
C TMFWD51
0031      SK=(((((-24.0D0*ETAS-48.0D0)*ETAS-28.0D0)*ETAS-4.0D0)*TS)+ TMFWD52
X(((4.0D0*ETAS+13.0D0)*ETAS+14.0D0)*ETAS+5.0D0))*((B(10)**4)/24.0D0 TMFWD53
X)*B(11)*B(11)+(1.0D0+ETAS)*B(11)*(B(10)*B(10))/2.0D0+1.0D0 TMFWD54
0032      SK=SK*A(8) TMFWD55

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C	COMPUTE CONVERGENCE ANGLE--THET	TMFWD56
C		TMFWD57
0033	THET=(B(10)*SINP*(1.0DO+((B(10)**2)*B(11)/3.0DO)*(1.0DO+3.0DO X*ETAS+2.0DO*ETAS**2)+(B(10)**4)*((B(11)**2)/15.0DO)*(2.0DO-TS)))* X206264.8062470964D0	TMFWD58 TMFWD59 TMFWD60
0034	99 RETURN	TMFWD61
0035	END	TMFWD62-

PROGRAM SECTIONS

Name	Size	Attributes
\$CODE1	002362 633	RW,I,CON,LCL
\$PDATA	000120 40	RW,D,CON,LCL
\$IDATA	000022 9	RW,D,CON,LCL
\$VARS 000220 72		RW,D,CON,LCL
\$TEMPS 000002 1		RW,D,CON,LCL

Total Space Allocated = 002746 755

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0001      SUBROUTINE MSORT(A,LA,IR,NB,T,TT)
C
VSRT1300
0002      DIMENSION      IU(21),IL(21),IR(1)
0003      BYTE      A(NB,LA),T(NB),TT(NB)
0004      M=1
VSRT1330
0005      I=1
VSRT1340
0006      J=LA
VSRT1350
0007      R=.375
VSRT1360
0008      10 IF (I .EQ. J) GO TO 55
VSRT1370
0009      15 IF (R .GT. .5898437) GO TO 20
VSRT1380
0010      R=R+3.90625E-2
VSRT1390
0011      GO TO 25
VSRT1400
0012      20 R=R-.21875
VSRT1410
0013      25 K=I
VSRT1420
C
VSRT1430
C
VSRT1440
VSRT1450
0014      IJ=I+(J-I)*R
0015      CALL MOVS(A(1,IJ),T,NB)
0016      IT=IR(IJ)
VSRT1470
C
VSRT1480
C
VSRT1490
VSRT1540
0017      IF(KOMP(A(1,I),T,NB).LE.0)GOTO 30
0018      CALL MOVS(A(1,I),A(1,IJ),NB)
0019      CALL MOVS(T,A(1,I),NB)
0020      CALL MOVS(A(1,IJ),T,NB)
0021      IR(IJ)=IR(I)
VSRT1550
0022      IR(I)=IT
VSRT1560
0023      IT=IR(IJ)
VSRT1570
0024      30 L=J
VSRT1580
C
VSRT1590
C
VSRT1640
0025      IF(KOMP(A(1,J),T,NB).GE.0)GOTO 40
0026      CALL MOVS(A(1,J),A(1,IJ),NB)
0027      CALL MOVS(T,A(1,J),NB)
0028      CALL MOVS(A(1,IJ),T,NB)
0029      IR(IJ)=IR(J)
VSRT1650
0030      IR(J)=IT
VSRT1660
0031      IT=IR(IJ)
VSRT1670
C
VSRT1680
C
VSRT1730
0032      IF(KOMP(A(1,I),T,NB).LE.0)GOTO 40
0033      CALL MOVS(A(1,I),A(1,IJ),NB)
0034      CALL MOVS(T,A(1,I),NB)
0035      CALL MOVS(A(1,IJ),T,NB)
0036      IR(IJ)=IR(I)
VSRT1740
0037      IR(I)=IT
VSRT1750
0038      IT=IR(IJ)
VSRT1760
0039      GO TO 40
0040      35 CALL MOVS(A(1,L),TT,NB)
0041      CALL MOVS(A(1,K),A(1,L),NB)
0042      CALL MOVS(TT,A(1,K),NB)
0043      ITT=IR(L)
VSRT1800
0044      IR(L)=IR(K)
VSRT1810
0045      IR(K)=ITT
VSRT1820
C
VSRT1830
VSRT1830
FIND AN ELEMENT IN THE SECOND HALF OF

```


	C	THE ARRAY WHICH IS SMALLER THAN T	VSRT1840
0046	40 L=L-1		VSRT1850
0047	IF(KOMP(A(1,L),T,NB).GT.0)GOTO 40		
	C	FIND AN ELEMENT IN THE FIRST HALF OF	VSRT1870
	C	THE ARRAY WHICH IS GREATER THAN T	VSRT1880
0048	45 K=K+1		VSRT1890
0049	IF(KOMP(A(1,K),T,NB).LT.0)GOTO 45		
	C	INTERCHANGE THESE ELEMENTS	VSRT1910
0050	IF (K .LE. L) GO TO 35		VSRT1920
	C	SAVE UPPER AND LOWER SUBSCRIPTS OF	VSRT1930
	C	THE ARRAY YET TO BE SORTED	VSRT1940
0051	IF (L-I .LE. J-K) GO TO 50		VSRT1950
0052	IL(M)=I		VSRT1960
0053	IU(M)=L		VSRT1970
0054	I=K		VSRT1980
0055	M=M+1		VSRT1990
0056	GO TO 60		VSRT2000
0057	50 IL(M)=K		VSRT2010
0058	IU(M)=J		VSRT2020
0059	J=L		VSRT2030
0060	M=M+1		VSRT2040
0061	GO TO 60		VSRT2050
	C	BEGIN AGAIN ON ANOTHER PORTION OF	VSRT2060
	C	THE UNSORTED ARRAY	VSRT2070
0062	55 M=M-1		VSRT2080
0063	IF (M .EQ. 0) RETURN		VSRT2090
0064	I=IL(M)		VSRT2100
0065	J=IU(M)		VSRT2110
0066	60 IF (J-I .GE. 11) GO TO 25		VSRT2120
0067	IF (I .EQ. 1) GO TO 10		VSRT2130
0068	I=I-1		VSRT2140
0069	65 I=I+1		VSRT2150
0070	IF (I .EQ. J) GO TO 55		VSRT2160
0071	CALL MOVS(A(1,I+1),T,NB)		
0072	IT=IR(I+1)		VSRT2180
0073	IF(KOMP(A(1,I),T,NB).LE.0)GOTO 65		
0074	K=I		VSRT2200
0075	70 CALL MOVS(A(1,K),A(1,K+1),NB)		
0076	IR(K+1)=IR(K)		VSRT2220
0077	K=K-1		VSRT2230
0078	IF(KOMP(T,A(1,K),NB).LT.0)GOTO 70		
0079	CALL MOVS(T,A(1,K+1),NB)		
0080	IR(K+1)=IT		VSRT2260
0081	GO TO 65		VSRT2270
0082	END		VSRT2280

PROGRAM SECTIONS

Name	Size	Attributes
SCODE1	004334 1134	RW,I,CON,LCL
\$PDATA	000004 2	RW,D,CON,LCL
\$IDATA	000130 44	RW,D,CON,LCL
\$VARS	000150 52	RW,D,CON,LCL

MSORT.FTN;1

/CK/F77/OP/TR:ALL/WR

\$TEMPS 000010

4

RW,D,CON,LCL

Total Space Allocated = 004650 1236


```

1          .TITLE LOOKUP
2          ;
3          ;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;
4          ;CALL:          L=LOOKUP(X, TABLE, NBX, NBT, NIT)
5          ;WHERE:
6          ;          X=SEARCH OBJECT
7          ;          TABLE=TABLE OF ITEMS
8          ;          NBX=# OF BYTES TO COMAPRE (1ST NBX BYTES ARE COMPARED)
9          ;          NBT=LENGTH( BYTES) OF EACH ELEMENT IN TABLE
10         ;          NIT=# OF ITEMS IN TABLE.
11         ;
12         ; ON RETURN,
13         ;          L=0          IF ITEM NOT FOUND
14         ;          L=J          IF ITEM IS IN JTH POSITION IN TABLE
15         ;
16         ;
17         ;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;

```

```

19 000000 005725 LOOKUP::TST      (R5)+
20 000002 012567      MOV      (R5)+,X ;ADDR OF X
      000072
21 000006 012567      MOV      (R5)+,TAB;POINTER TO TABLE
      000070
22 000012 013567      MOV      @(R5)+,NBX;# OF BYTES TO COMAPRE
      000066
23 000016 001426      BEQ      4$
24 000020 013567      MOV      @(R5)+,NBT;BYTE LENGTH OF TABLE ITEM
      000062
25 000024 017505      MOV      @(R5),R5;# IN TABLE
      000000
26 000030 001421      BEQ      4$
27      ;
28 000032 012700      MOV      #1,R0 ;SET RETURN VALUE TO 1ST
      000001
29      ;
30 000036 016701 1$:      MOV      X,R1 ;R1=PTR TO SEARCH OBJECT
      000036
31 000042 016702      MOV      TAB,R2 ;R2=PTR TO CURRENT TABLE ITEM
      000034
32 000046 016704      MOV      NBX,R4 ;R4=# BYTES TO COMAPRE
      000032
33 000052 122122 2$:      CMPB      (R1)+,(R2)+;COMPARE NEXT BYTE
34 000054 001002      BNE      3$ ;EXIT ON 1ST UNEQUAL
35 000056 077403      SOB      R4,2$ ;CONTINUE IF EQ
36 000060 000207      RETURN      ;ALL EQ , RETURN WITH INDEX IN R0
37      ;
38 000062 066767 3$:      ADD      NBT,TAB ;POINT TO NEXT TABLE ITEM
      000020
      000012
39 000070 005200      INC      R0 ;ADVANCE INDEX
40 000072 077517      SOB      R5,1$ ;COUNT AND CONTINUE
41 000074 005000 4$:      CLR      R0 ;NOT IN TABLE, SET R0 SO
42 000076 000207      RETURN
43 000100 000000 X:      .WORD      0
44 000102 000000 TAB:      .WORD      0
45 000104 000000 NBX:      .WORD      0
46 000106 000000 NBT:      .WORD      0
47      000001      .END

```


Symbol table

LOOKUP	000000RG	NBX	000104R	X	000100R
NBT	000106R	TAB	000102R		

. ABS. 000000 000 (RW,I,GBL,ABS,OVR)
 000110 001 (RW,I,LCL,REL,CON)

Errors detected: 0

*** Assembler statistics

Work file reads: 0

Work file writes: 0

Size of work file: 39 Words (1 Pages)

Size of core pool: 9378 Words (36 Pages)

Operating system: RSX-11M/PLUS

Elapsed time: 00:00:02.31

,LOOKUP/LI:TTM=LOOKUP

```
1 .TITLE ASK
2 .IDENT /V02/
3 .MCALL DIR$, QIOW$
4 .NLIST BEX
5 .LIST TTM
6
7 ;
8 ; UPGRADE FOR 'ASK' TO USE READ WITH PROMPT.
9 ; ADDITIONAL ENTRY PTS FOR GETTING A STRING.
10 ;
11 ; CALLS:
12 ; L=ASK(JANS, PRMPT, [LUN], [ERR])
13 ; L=ASKS(BUF, PRMPT, [LUN], [ERR])
14 ; L=ASKL(BUF, PRMPT, [LUN], [ERR])
15 ;
16 ; NOTE: USER MUST TYPE ASK, ASKS, ASKL AS INTEGER IF FUNCTION FORM
17 ; IS TO BE USED.
18 ;
19 ; NOTE: IF FUNCTION VALUE IS NOT DESIRED, IE, BYTE CNT,
20 ; THE ROUTINES CAN BE CALLED AS SUBROUTINES, EG,
21 ; CALL ASK(J, PRMPT, [LUN], [ERR])
22 ;
23 ; ON RETURN,
24 ; L=# OF CHARACTERS INPUT .
25 ;
26 ; IF OPTIONAL LUN IS OMITTED, 5 IS USED FOR TI: LUN.
27 ; IF OPTIONAL 4TH ARG IS GIVEN,
28 ; ERR BYTE OF I/O STATUS IS RETURN AS INTEGER WITH SIGN EXTENDED.
29 ; IF OPTIONAL ERR ARG IS NOT GIVEN, NO STATUS IS RETURNED.
30 ; USER CAN USE THIS ARG TO TEST FOR EOF, FOR EXAMPLE.
31 ; FOR 'ASK", J=0 ON RETURN IF 1ST BYTE OF RESPONSE IS ANYTHING
32 ; A 'Y', ELSE IT IS 1.
33 ; A NULL RESPONSE ALSO YIELDS A ZERO.
34 ;
35 ; FOR 'ASKS', BUF MUST BE AT LEAST 80. BYTES LONG
36 ; AND FOR 'ASKL', IT MUST BE 132. LONG.
37 ;
38 ;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;
```



```

39 000000 005004 ASK:: CLR R4 ;SET INDEX
40 000002 005067 CLR LONG
41 000006 000412 BR GO
42 000010 012704 ASKS:: MOV #2,R4
43 000014 005067 CLR LONG
44 000020 000405 BR GO
45 000022 012704 ASKL:: MOV #2,R4
46 000026 012767 MOV #1, LONG
47 000034 012703 GO: MOV #QIO,R3 ;POINT R3 TO QIO
48 000040 012763 MOV #5,Q.IOLU(R3);ASSUME DEFAULT LUN
49 000046 012500 MOV (R5)+,R0;GET NARGS
50 000050 120027 CMPB R0,#3 ;3 GIVEN?
51 000054 002407 BLT 1$ ;IF LT, NO.
52 000056 022765 CMP #-1,4(R5);ARG PRESENT?
53 000064 001403 BEQ 1$ ;IF EQ, NO
54 000066 017563 MOV @4(R5),Q.IOLU(R3);USE IT.
55 ;
56 000074 005067 1$: CLR USB ;CLEAR USER STATUS ADDR
57 000100 120027 CMPB R0,#4 ;4 ARGS GIVEN?
58 000104 002407 BLT 10$ ;IF LT ,NO
59 000106 022765 CMP #-1,6(R5);ARG IS NULL?
60 000114 001403 BEQ 10$ ;IF EQ , YES
61 000116 016567 MOV 6(R5),USB;NO, GET USER ADDR FOR STATUS
62 ;
63 000124 062703 10$: ADD #Q.IOPL,R3;POINT R3 TO PARAM LIST
64 000130 016500 MOV 2(R5),R0;GET PROMPT STRING
65 000134 012701 MOV #MSG,R1 ;TO LOCAL.
66 000140 112021 2$: MOVB (R0)+,(R1)+
67 000142 001376 BNE 2$
68 000144 005301 DEC R1
69 000146 016400 MOV SFX(R4),R0;APPEND CORRESP'G SUFFIX
70 000152 112021 3$: MOVB (R0)+,(R1)+
71 000154 001376 BNE 3$
72 000156 005301 DEC R1
73 000160 162701 SUB #MSG,R1 ;CALC SIZE
74 000164 010163 MOV R1,10(R3);STORE IN QIO
75 000170 005767 TST LONG ;LONG FORM?
76 000174 001404 BEQ 4$ ;IF EQ, NO
77 000176 012763 MOV #'0,12(R3);SET FOR <CR>
78 000204 000403 BR 5$
79 000206 012763 4$: MOV #'$',12(R3);SET FOR NO <CR>
80 000214 005704 5$: TST R4 ;DOING 'ASK'?
81 000216 001412 BEQ 7$ ;IF EQ, YES
82 000220 011523 MOV (R5),(R3)+;NO, SET USERS BUFF ADDR
83 000222 005767 TST LONG ;AND SET CNT AS REQ'D
84 000226 001403 BEQ 6$
85 000230 012713 MOV #132.,(R3)
86 000234 000407 BR 8$
87 000236 012713 6$: MOV #80.,(R3)
88 000242 000404 BR 8$
89 ;
90 000244 012723 7$: MOV #ANS,(R3)+;SET LOCAL BUF ADDR
91 000250 012713 MOV #4,(R3) ;AND SMALL SIZE
92 ;
93 000254 8$: DIR$ #QIO ;XEQ QIO
94 000262 016700 MOV IOSB+2,R0;SETUP RETURN VALUE (ACTUAL BYTE CNT)
95 000266 016701 MOV USB,R1 ;GET USER ADDR FOR STATUS

```

```

96 000272 001403      BEQ      81$      ;IF EQ, NONE
97 000274 116702      MOVb     IOSB,R2 ;GET ERR BYTE
98 000300 010211      MOV      R2,(R1) ;RETURN AS WORD, SIGN EXTENDED.
99                      ;
100 000302 005704 81$: TST      R4      ;DOING 'ASK'?
101 000304 001017      BNE      9$      ;IF NE, NO-DONE
102 000306 005075      CLR      @(R5)   ;YES, SET RESPONSE ANS TO 'NO'
103 000312 005700      TST      R0      ;WAS RESPONSE NULL?
104 000314 001413      BEQ      9$      ;IF EQ, YES. LEAVE AS 'NO'
105 000316 122767      CMPb     #'Y,ANS ;NOT NULL. IS IT 'YES'?
106 000324 001003      BNE      85$     ;IF NE, NO-DONE
107 000326 005275 84$: INC      @(R5)   ;CAHNGE IT TO 'YES'
108 000332 000207      RETURN          ;DONE
109 000334 122767 85$: CMPb     #171,ANS;LOWER CASE 'Y' ?
110 000342 001771      BEQ      84$     ;IF EQUAL, IT IS
111 000344 000207 9$:  RETURN
112                      ;
113 000346          QIO:  QIOW$  IO.RPR,0,1,,IOSB,,<0,0,0,MSG,0,0>
114 000376          IOSB: .BLKW  2
115 000402          USB:  .BLKW  1
116 000404 000416' SFX:  .WORD  YESNO,STRING
117 000410          ANS:  .BLKB  4
118 000414 000000 LONG:  .WORD  0
119 000416          077 YESNO: .ASCIZ  "? [Y/N]:"
120 000427          040 STRING: .ASCIZ  ' '
121 000431          MSG:  .BLKB  88.
122                      .EVEN
123          000001      .END

```


Symbol table

ANS	000410R	MSG	000431R	Q.IOSB=	000010
ASK	000000RG	QIO	000346R	SFX	000404R
ASKL	000022RG	Q.IOAE=	000012	STRING	000427R
ASKS	000010RG	Q.IOEF=	000006	USB	000402R
GO	000034R	Q.IOFN=	000002	YESNO	000416R
IOSB	000376R	Q.IOLU=	000004	\$\$\$ARG=	000006
IO.RPR=	***** GX	Q.IOPL=	000014	\$\$\$OST=	000014
LONG	000414R	Q.IOPR=	000007		

. ABS. 000000 000 (RW,I,GBL,ABS,OVR)
 000562 001 (RW,I,LCL,REL,CON)

Errors detected: 0

*** Assembler statistics

Work file reads: 0
 Work file writes: 0
 Size of work file: 8634 Words (34 Pages)
 Size of core pool: 9378 Words (36 Pages)
 Operating system: RSX-11M/PLUS

Elapsed time: 00:00:04.49
 ,ASK/LI:TTM=ASK

```
1          .TITLE   KOM
2          .IDENT   /V01/
3          ;;;;;;;;;;
4          ;
5          ;      COMPARE AND MOVE BYTE STRING ROUTINES
6          ;
7          ;;;;;;;;;;
```



```

 9      ; ROUTINE TO PERFORM MAGNITUDE (UNSIGNED) COMPARE ON TWO BYTE STRIN
10      ;
11      ; CALL:          K=KOMP(S1,S2,NB)
12      ; WHERE:
13      ;              S1=1ST BYTE STRING
14      ;              S2=2ND BYTE STRING
15      ;              NB=NUMBER OF BYTES IN EACH (LENGTH)
16      ;
17      ; ON RETURN:
18      ;              K=-1    IFS1<S2
19      ;              K=0    IFS1=S2
20      ;              K=+1   IFS1>S2
21      ;
22      ;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;
23 000000 005725 KOMP:: TST      (R5)+
24 000002 012501      MOV      (R5)+,R1;PTR TO S1
25 000004 012502      MOV      (R5)+,R2;PTR TO S2
26 000006 017503      MOV      @(R5),R3;# OF BYTES
    000000
27 000012 005000      CLR      R0          ;START WITH =
28 000014 122122 1$:  CMPB     (R1)+,(R2)+;COMPARE NEXT BYTES
29 000016 103403      BLO      2$          ;IF LO, S1<S2
30 000020 101004      BHI      3$          ;IF HI, S1>S2
31 000022 077304      SOB      R3,1$      ;=, CONTINUE WITH NEXT BYTES
32 000024 000207      RTS      PC          ;STRINGS =
33      ;
34 000026 005300 2$:  DEC      R0          ;SET FOR S1<S2
35 000030 000207      RTS      PC
36 000032 005200 3$:  INC      R0          ;SET S1>S2
37 000034 000207      RTS      PC

```

```
39 ;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;
40 ;
41 ; ROUTINE TO MOVE A BYTE STRING.
42 ;
43 ; CALL:          CALL MOVS(S1,S2,NB)
44 ; WHERE:         S1=SOURCE STRING
45 ;               S2=DESTINATION STRING
46 ;               NB=# OF BYTES TO MOVE
47 ;
48 ;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;
49 ;
50 000036 005725 MOVS:: TST      (R5)+
51 000040 012501      MOV      (R5)+,R1
52 000042 012502      MOV      (R5)+,R2
53 000044 017503      MOV      @(R5),R3
54 000050 001402      BEQ      2$
55 000052 112122 1$:   MOVB     (R1)+,(R2)+
56 000054 077302      SOB      R3,1$
57 000056 000207 2$:   RTS      PC
58 000001 000001      .END
```


KOMP 000000RG MOV5 000036RG
.
ABS. 000000 000 (RW,I,GBL,ABS,OVR)
000060 001 (RW,I,LCL,REL,CON)
Errors detected: 0

*** Assembler statistics

Work file reads: 0
Work file writes: 0
Size of work file: 34 Words (1 Pages)
Size of core pool: 9378 Words (36 Pages)
Operating system: RSX-11M/PLUS

Elapsed time: 00:00:02.09
,KOM/LI:TTM=KOM

SAMPLE CATALOGUE INPUT FILE

sitedcd=ARB3600169
sitcon=Harry Dillon
siteph=(714) 339-4314
sitnam=Needles
sitad1=1800 Washington
sitad2=Needles, CA
repres=115020 (Representativeness)
comnt1=Atomic absorption for AL,SI,CD,Pb on Hi-vol
comnt2=filter. Date for SO2 unavailable.
PURNET=AQ3RE (Purpose of network)
SITES=54
CONTCT=Fred Granum
AGENCY=ARB - Aerometric Data Branch
ADDRS1=1131 S Street
ADDRS2=Sacramento, CA 95814
PHONE =(916) 445-4765
OPPROC=1
analyt=TSP
DATQUA=0043442 (Data quality)
compcd=10 (Comparality code)
methcd=92 (Method code)
smpfrq=E (Sampling frequency) A-Hourly; B-Daily; C-Continuous; D-Other; E-6th day
stdate=7/72
enddate=12/72
analyt=SULFATE
DATQUA=0043432
compcd=10
methcd=92
stdate=12/72
enddate=12/72
smpfrq=E
analyt=COH
DATQUA=0043432
compcd=10
methcd=81
smpfrq=C
stdate=1/71
enddate=6/73

Appendix C

PARAMETER ABBREVIATIONS

VARIABLE	ABBREVIATION
WIND SPEED	WS
WIND DIRECTION	WD
RESULTANT WIND SPEED	REWS
RESULTAND WIND DIRECTION	REWD
UPPER WIND SPEED	UWS
UPPER WIND DIRECTION	UWD
VERTICAL WIND DIRECTION	VTWD
SIGMA FOR HORIZONTAL WIND DIRECTION	SHWD
SIGMA FOR VERTICAL WIND DIRECTION	SVWD
BAROMETRIC PRESSURE	PRES
STABILITY	STAB
TEMPERATURE	TEMP
DEW POINT	DEW
RELATIVE HUMIDITY	RH
PRECIPITATION	RAIN
SOLAR RADIATION	INSO
MIXING HEIGHT	MIXH
TOTAL SUSPENDED PARTICULATES	TSP
PARTICULATES	PART
SIZE SELECTIVE PARTICULATES:	
10 UM	PM10
15 UM	PM15
FINE	PMF

VARIABLE	ABBREVIATION
COARSE	PMC
NO SIZE SPECIFIED (BOTH)	SSI
SULFATES	SO4
NITRATES	NO3
ALUMINUM	AL
CADMIUM	CD
LEAD	PB
SILICON	SI
IRON	FE
ELEMENTAL CONCENTRATION	ELEM
HYDROGEN SULFIDE	H2S
OZONE	O3
TOTAL OXIDANT	TOX
CARBON MONOXIDE	CO
TOTAL SULFUR (UNFILTERED)	TSUL
SULFUR DIOXIDE	SO2
NITRIC OXIDE	NO
NITROGEN DIOXIDE	NO2
OXIDES OF NITROGEN	NOX
NON METHANE HYDROCARBON	NMHC
METHANE	CH4
BENZENE SOLUBLE ORGANICS	BSO
TOTAL HYDROCARBONS	THC
LIGHT SCATTER	BSCT
VISIBILITY	VISI
SOILING INDEX-COEFFICIENT OF HAZE	COH
SOILING INDEX-REFLECTANCE	RUD

Appendix D

METHOD CODES

METHOD CODE	POLLUTANT	METHOD OF COLLECTION	METHOD OF ANALYSIS
91	TOTAL SUSP PARTICULATES	HI-VOL (GLASS FIBER)	GRAVIMETRIC
91	TOTAL ORGANIC FRACTION	HI-VOL (GLASS FIBER)	BENZENE EXTRACTION
81	SOILING INDEX	TAPE SAMPLER	TRANSMITTANCE
91	SOILING INDEX	TAPE SAMPLER	REFLECTANCE
11	LIGHT SCATTER	INSTRUMENTAL	NEPHELOMETER
92	ALUMINUM	HI-VOL (CELLULOSE)	
92	CADMIUM	HI-VOL (CELLULOSE)	ATOMIC ABSORPTION
55	LEAD	HI-VOL (CELLULOSE)	ATOMIC ABSORPTION
56	LEAD	HI-VOL (GLASS FIBER)	X-RAY FLUORESCENCE
92	LEAD	HI-VOL (GLASS FIBER)	ATOMIC ABSORPTION
55	SILICON	HI-VOL (CELLULOSE)	
55	SUSPENDED NITRATES	HI-VOL (GLASS FIBER)	BRUCINE COLORIMETRIC
57	SUSPENDED NITRATES	HI-VOL (GLASS FIBER)	MODIFIED SALTZMAN
58	SUSPENDED NITRATES	HI-VOL (GLASS FIBER)	SPECIFIED ION ELECTROD
59	SUSPENDED NITRATES	HI-VOL (GLASS FIBER)	2,4, XYLENOL
55	SUSPENDED SULFATES	HI-VOL (GLASS FIBER)	METHYLTHYMOL BLUE
92	SUSPENDED SULFATES	HI-VOL (GLASS FIBER)	TURBIDIMETRIC
11	CARBON MONOXIDE	INSTRUMENTAL	NDIR
12	CARBON MONOXIDE	INSTRUMENTAL	NDIR-LONG PATH
16	SULFUR (TOTAL)	INSTRUMENTAL	FLAME PHOTOMETRIC
13	SULFUR DIOXIDE	INSTRUMENTAL	CONDUCTIMETRIC
14	SULFUR DIOXIDE	INSTRUMENTAL	COULOMETRIC
15	SULFUR DIOXIDE		
16	SULFUR DIOXIDE	INSTRUMENTAL	FLAME PHOTOMETRIC
20	SULFUR DIOXIDE	INSTRUMENTAL	PULSED FLUORESCENCE
71	HYDROGEN SULFIDE	TAPE SAMPLER	LEAD ACETATE PAPER
11	NITRIC OXIDE	INSTRUMENTAL	COLORIMETRIC
14	NITRIC OXIDE	INSTRUMENTAL	CHEMILUMINESCENT
51	NITRIC OXIDE	DERIVED	CHEMILUMINESCENT
99	NITRIC OXIDE	DERIVED	COLORIMETRIC
11	NITROGEN DIOXIDE	INSTRUMENTAL	COLORIMETRIC
14	NITROGEN DIOXIDE	INSTRUMENTAL	CHEMILUMINESCENT
96	NITROGEN DIOXIDE	DERIVED	CHEMILUMINESCENT
11	OXIDES OF NITROGEN	INSTRUMENTAL	COLORIMETRIC
14	OXIDES OF NITROGEN	INSTRUMENTAL	CHEMILUMINESCENT

METHOD CODE	POLLUTANT	METHOD OF COLLECTION	METHOD OF ANALYSIS
98	OXIDES OF NITROGEN	DERIVED	CHEMILUMINESCENT
99	OXIDES OF NITROGEN	DERIVED	COLORIMETRIC
11	TOTAL HYDROCARBONS	INSTRUMENTAL	FLAME IONIZATION DET.
11	TOTAL HYDROCARBONS	INSTRUMENTAL	FLAME IONIZATION DET.
14	TOTAL HYDROCARBONS	INSTRUMENTAL	FLAME IONIZATION DET.
14	NON-METHANE HC	INSTRUMENTAL	FLAME IONIZATION DET.
14	METHANE	INSTRUMENTAL	FLAME IONIZATION DET.
14	TOTAL OXIDANT	INSTRUMENTAL	COLORIMETRIC
11	OZONE	INSTRUMENTAL	CHEMILUMINESCENT
14	OZONE	INSTRUMENTAL	UV PHOTOMETRIC
51	SIZE FRAC PARTICULATES	DICHOTOMOUS	15-2.4 GRAVIMETRIC
52	SIZE FRAC PARTICULATES	DICHOTOMOUS	2.5-0 GRAVIMETRIC
53	SIZE FRAC PARTICULATES	DICHOTOMOUS	2.5-10 GRAVIMETRIC
57	SIZE SELC PARTICULATES	SIZE SELECTIVE HI-VOL	GRAVIMETRIC TOTAL 215
58	SIZE SELC PARTICULATES	SIZE SELECTIVE HI-VOL	GRAVIMETRIC TOTAL
52	SULFATES-SIZE SELECTIVE	SIZE SELECTIVE HI-VOL	TURBIDIMETRIC

